

THE LAST SKEPTIC OF SCIENCE

by René



"The Book Mensa Tried To Stop"

THE LAST SKEPTIC OF SCIENCE

by René

Revised
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formerly

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Edited for logic and context by Stu Lucas & Ed Hughes

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This is the page where writers acknowledge the people who helped them in their task. I am grateful to my mother who supplied the funds necessary to self-publish "Mensa Lectures - The Last Skeptic Of Science", the forerunner of this book. She also stood between me and starvation a few years later. I also want to posthumously give credit to two people. The first, Peter Ross, a technical genius who was my mentor and the other, Rick Iacobelli, one of my best friends, who understood my work.

It should be noted, that the years between the writing and publication of this book also cost me the love of my life. I called her Pixie and she was my friend, my lover and my wife. She is also an extraordinary cook, an artist in oils, and an extremely intelligent sounding board. For as long as she could, she provided total and unquestioning support without which I could never have started, yet alone completed, any of my writings. Unknown to me, her friends pronounced me to be that most detestable of men, "A **KNOW IT ALL**", which is about four steps lower than that abomination known as a "SMART ASS". One sad day, unfortunately, she left me. Still, she was a great help, and I remain grateful.

Special thanks to Subi, the artist, who took my crude sketches and illustrated them so well. And Chris Wolfer, artist and son-in-law, who took over Subi's work when I needed a few more drawings. Then there is Stu Lucas, who generously gave up time that could have been spent on his own writing projects and instead edited two of my books.

I want to personally thank John Cook, and John LaVista for keeping my computer running and upgraded so it could do the job required. My adopted brother John Cook also rescued me from the streets when I became homeless. Both of these men cheered me on with actions, not words. The debt I owe to both can never be repaid. These men are true friends.

become so familiar to me that I failed to realize that writing down the results of my research would read like fantasy to others who hadn't had that kind of exposure. A war with American Mensa forced me to this realization, so I decided to provide post-publication footnotes from these books I had read over the years. More trouble! I spent two full months of ninety hour weeks trying to locate, re-read and document as much of this material as I could find. After I had gathered it all together, I figured that I was done with that Herculean task. But then I was told that I'd need permission to use the footnotes and quotations from the publishers or authors.

I had always been under the impression that if you credited a source, then you could use direct quotes. Well, the way things are now, maybe you can — and maybe you can't.

Requests for these permissions were time consuming and very difficult to come by. Very few gave their consent. I have decided that I would never try to control another author's text, by this ruse which is why my statement on the title page reads as it does.

I was born an iconoclast. The authoritarian abuse I have been subjected to over the years has turned me into a kicker of the behinders of both societal and scientific sacred cows. In today's 'politically correct' country I sometimes feel that I am the last non-religious scientific skeptic. This book is intended for liberal-minded adults who may also have a touch of skepticism. It includes profanity, a disgust of organized religions and a hostility of all governments in general and of the US government in particular — all justifiable in my view! Of you the reader, all I ask is that you evaluate my work with an open mind.

Lack of money cut short my college years. However, I did receive years of one-on-one intensive training from a technical genius named Peter Ross. This man had one of the finest technical minds in the world and I became his eager, Igor. Dr. Frankenstein Ross, with malice aforethought, hammered open my mind. In the beginning, Pete gave me splitting headache after splitting headache as he showed me that much of what I thought I knew for sure was ... Bullshit. On 9/16/87 he was shot dead in his own house, with his own gun while talking to the police, by a man named John H. Brown III. An assistant prosecutor told me a few months later that John Brown was residing in a funny farm. Pete's family believes he was in Rahway Prison, yet nobody seems sure about anything, because he was walking the streets as a free man three short years later. I smell the CIA.

The irony of the situation is that my genius friend (who was truly a bit crazy) is dead, while the completely sane murderer who shot him may have spent time at a funny farm.

Peter left me a legacy of a mind so open that when I shake my head everything I think I know falls out. I'm not complaining. Frankly, I prefer to be empty-headed rather than have a closed mind like most of the experts I have met. You have probably heard this definition: An expert is a person who spends his life learning more and more about less and less in one field, until this "expert" knows absolutely everything about absolutely nothing. I despise most "experts". Yet, every once in a while (as much as I hate to admit

it) I meet one who somehow slipped through the system and actually maintains an open mind.

Besides, I am prone to exaggerate. When I use the words “all” and “every”, they simply mean “most”. I sarcastically refer to professional scientists as philosophers because I simply can’t help myself. I slowly and painfully developed my material over 25 years. I occasionally use the words “bullshit and asshole” because they are so much more appropriate than politically correct euphemisms.

Major portions of this work have been exposed to many Mensa scientists who have pooh-pooed, tut-tutted and even resorted to magic to defeat my arguments. At least, magic is what I call it when you present theory piled on theory, instead of hard proof of refutation. The summer following original publication I submitted about 100 letters to various Mensa professional scientists, limiting my questions only to their particular areas of expertise. Only 30 responded and almost all in effect, wrote, *“I know you’re wrong but I can’t quite prove it.”*

Our professional scientists have us believing that all the crucial “I’s” of science are dotted, and all that’s left is to cross a few “T’s”. However, my arithmetic “Unproof of Gravity” negates Newton’s attraction of mass for mass. Actual testing of my two-leaf electroscope proves that Coulomb’s Law of Electro-statics needs modification. This, in turn, negates much of particle physics and demonstrates that the theories we have on electricity are, if not in error, at least incomplete. I show Newton, “the Father of Modern Science”, to be at best, a hypocrite by examining the “Principia.” And I provide observational proof that the Earth’s bulge is at least much smaller than we were told. I demonstrate that many of our scientific basic assumptions are either unproven, or worse unprovable. Thus modern science is operating on faith just like any other religion. Many of the so-called “LAWS” of science are only tenets, or paradigms of this somewhat organized religion called science.

Everything we think we know about astronomy and astro-physics hangs by a thread after I dissect the famous weighing of the Earth by Cavendish. My dissection of Hubble’s Law and Einstein’s Relativity offers rich speculation, but severely questions the proofs the philosophers have provided. This book offers strong evidence that our planet is subject to periodic and cataclysmic “Roll-Overs” which leads to new viewpoints on geology, paleontology and history. I also offer evidence that Carl Sagan and other prophets of the “Hot House Effect” are wrong. The Earth’s climate has been cooling off for the last thousand years.

I have tried to make my work understandable to the average reader who has an interest in science. I hope that the reader will also gain a better understanding of many of the more obscure aspects and assumptions of modern science.

Now you are entitled to believe anything that you want to. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

Our Emotional Belief System (our **EBS**) is, to our minds, as the operating system is to that diabolical and fiendish machine known as the computer. Here the operating system is a program that sets limits to all the machine's functions and tells the machine not only what data and controls it will respond to, but also exactly how it will respond. In a computer the operating system must be loaded into memory each time the machine is turned on.

In people, the **EBS** takes many years to load. Year after year, the loading process continues. In the end our opinions, actions and thought processes become familiar and therefore comfortable, standardized to the common uniformity of society. Our **EBS** is capable of modification to some degree, but neither brain nor computer can function outside the limits imposed by **EBS** in mankind, or the operating system in a computer.

Religion is one of the great molders of our **EBS**. As children, long before our critical facilities develop, we are imprinted by our parents and our society's opinions of right and wrong, of good and evil, of expectations and hopefully, the ability to tell "Shit from Shinola". These opinions are mainly derived from prevailing religious beliefs and vary from country to country and from era to era. For example, as a member of a modern Christian society, we are imprinted with the biblical edict "*Thou shalt not kill*".

However, in a warrior society, the young men are schooled to drool for the opportunity to chop up their first real live enemy. Our society's women deplore violence, but in a warrior society women actively seek out the warriors. In most cases our imprinting will control the operation of our minds for the rest of our lives.

All philosophy is rooted in our **EBS**. This is originally seeded by cultural osmosis when we are babies. Our parents prepare us to see things the way they "are", or rather the same way as they see them. Our **EBS** is reinforced by religion and education long before our logic centers are mature. Church and school teach us not to ask questions which our elders either can't, or won't answer.

As adults, when our **EBS** is threatened by contrary facts or logic, we either bias our perception of the facts, ignore them completely, or become irrational. Whether philosopher or longshoreman, anything that threatens one's rice bowl, pride, prestige, or **EBS** will be met with irrational anger. This is an intensely "human" reaction. It also happens to be the reaction of most of the other animals on the planet.

I believe hypnosis to be an excellent demonstration of the power inherent in a person's **EBS**. The hypnotist, by modification of a susceptible hypnotic subject's **EBS**, can control all sensory input enabling the subject to see or hear only what the hypnotist commands. The subject may be given input that is contrary to reality or logic, or may be commanded to ignore sights or sounds that exist. It then becomes obvious that the hypnotist is in control of the subject's **EBS**. In a less dramatic but equally powerful fashion, a person's **EBS** will govern, in every day life, what one is allowed to think about, what logic one may use for decision making, and what evidence may be consid-

an era seems to require super-specialization, so severe that almost all training is now rote memory and restricted to a single subject. The early natural philosophers were people who retained the ability to marvel at the wonder in the world and ask questions that usually only occur to children and fools like me. But unlike either a child or an authoritarian answers always failed to settle their minds.

In the third century BC, a Greek natural philosopher named Eratosthenes calculated the circumference of the Earth, producing a value that was remarkably close to modern figures. On a specific day he caused the angle of elevation of the sun at high noon to be measured at Egyptian cities whose distance one from the other, was known. We have been told that all our ancestors thought that the world was flat. However, before this experiment could even be attempted, Eratosthenes had to sense that the Earth was a sphere. The concept that the Earth was flat came later.

In the Second Century AD, the Greek nation matured, lost its delusions of world conquest and turned inward. A Greek natural philosopher living in Alexandria at the mouth of the Nile bore the Egyptian name of Ptolemy. He gained fame as an astronomer and theorized the idea of an Earth centered universe. Ptolemy used the simple observation that the heavens wheel across Earth's sky, and from this he theorized that the entire universe must be revolving around a stationary and stable Earth.

Ptolemy embedded all the celestial bodies in a series of invisible, transparent, concentric spherical shells, or spheres. This theory indirectly led man back onto a flat world as the oceans cascaded over its dangerous edges. Obviously, if the oceans cascaded over the Earth had to be flat.

Ptolemy necessitated additions called epicycles to explain the sometime retrograde motion of some planets. They were later used whenever future observations, or refined astronomical data, were discovered. These were smaller, "wheel within a wheel" shells that were affixed to, and rotated on, the main shells. When revision was needed the natural philosophers had but to add another epicycle to make things right. For one thousand years Ptolemaic Astronomy seemed to explain all the motions of the

universe in simplistic thinking at its best. But the early Christian church not only accepted Ptolemaic astronomy but whole-heartedly endorsed it. Between wars of conquest and those of religious differences, the various population-decimating plagues, and extreme religious persecution, western civilization suffered intermittent catastrophes and destructions; until the only education available was that provided by ... Mother Church! Papie Rome, in the centuries for the next 1300 years, slavishly taught Ptolemaic astronomy. The Church silenced inquiring voices with threats of ex-communication. If that failed, Mother Church was not adverse to issuing special invitations to dissident thinkers commanding them to appear in varance as guest of honor at church-sponsored public barbecues.

When the flame was lit, and the expansion of human knowledge flared in the period of history known as the Renaissance. In the early 1500's a Polish monk by the name of Copernicus (1473-1542) already in the habit of questioning the

sphere, postulated that Earth not only rotated on its axis but that it, along with the all the other planets, revolved around the Sun.

In 1529 a German monk, Martin Luther, “protested” the strict Roman Catholic rules and formed the Lutherans, the first sect of the “Protest-ants”. Here local parishioners had a say about their church’s affairs, as opposed to being absolutely ruled by a remote bureaucracy headed by a sovereign foreign Pope. This schism has never healed.

In the hysteria that followed both the Protestant separation and the new astronomy, another monk, Bruno Giordano (1548-1600), was barbequed (burned at the stake) for heresy. He was an agitator in other political areas, but his heresy had nothing to do with God. He was roasted because he no longer believed in the Ptolemaic universe.

Shortly before the invention of the telescope, a Danish noble named Tycho Brahe (1546-1601) developed an intense interest in astronomy. He was an extremely wealthy aristocrat and in 1592 King Frederick II, impressed with his work, gave him the island of Hveen, and supplied funding for the creation of the Uranienborg observatory. In essence, Tycho was the Danish astronomer royal and Uranienborg, the royal observatory.

Hveen became self sufficient as Tycho set up various trade shops and a foundry. The island also housed and fed the craftsmen and artisans that he hired to help execute his designs. He was an ingenious creator and during his life-time he created the most precise pre-telescopic observational equipment that had ever been built. With these wondrous toys he made the most accurate celestial measurements ever made. He spent years gathering ever more accurate data which inadvertently set the stage for the annihilation of the Ptolemaic geocentric theory.

✓✓ Hveen - 500 years - 500 years

When it became apparent that his data was not conforming with the geocentric theory, Tycho attempted to add yet another cyclic patch to the crazy quilt of epicycles that the Ptolemaic theory had become. Tycho was not a wild-eyed reformer. The adjectives “rich” and “noble” are antithetical to reform, but by 1584 he had grown desperate enough to add the grand daddy of all epicycles to the system because of the conflict between his data and accepted Astronomy.

It was a major revision because he now claimed that all the other planets orbited the Sun. His last epicycle had almost made the transition from Earth centered to a helio-centered solar system and unfortunately, he left the Sun still revolving around a geocentric Earth. In its time it was a valiant effort, and most scientific historians consider this to have been the last epicycle. And it was ... of the Ptolemaic era.

When his last epicycle failed he began to suspect that perhaps something was rotten in Denmark after all. Only religious fanatics were still speaking of the tinkling of heavenly music generated by the turning of the celestial spheres, and heard by only the righteous. Men and women of the Renaissance were ‘diggin’ the syncopated beats of different drummers instead of the stifling regimented forms of proper chamber music.

occultism, heresy was let go

We’ll never know whether or not he was punished for theorizing counter to the prevailing

Hveen, the observatory, all his painfully created toys and submit to exile.

The charge was that he abused his peasants. This was true enough, but he had always abused his peasants.

Uniquely, what king, before or since, has ever sided with a peasant over one of his nobles? Fortunately, either by fate or planning, Tycho was already in contact with Kepler (1571-1630), a known disciple of Copernicus. I

believe that Tycho's old desperation resurfaced when the new data still didn't fit the great revision he himself had proposed.



1 A

In 1599, Tycho made some financial arrangements with Kepler that were scanty at best. After all the years, Tycho had to have known he would never be mathematician enough to discover the new astronomy that his data so seductively promised. But Kepler was recognized as one of the finest mathematicians in Europe and Tycho didn't want his life's work, all that raw data painfully collected over the years, to go to the grave with him. He had given it his all and honorably failed.

Tycho died in exile before he could actually turn over his data, Kepler then had to fight tooth and nail against Tycho's stupid and typically arrogant aristocratic heirs. Kepler ended the unequal battle when he simply took the data and ran. By 1605, from this precision data, Kepler created the three laws of planetary motion. These are still in use today to predict the future position of the planets.

Men just as intelligent as we, some more so, had accepted the Ptolemaic theory without question for 14 centuries. That tells us a great deal about people and their EBS. Contrary to the self praise today's scientists heap on each other, science is still a field of very human endeavor and subjected to the same raw emotionalism as any other. Threaten rice bowl or ego and scientists are quicker to fight than longshoremen. The only difference is that they use cutting words instead of cargo hooks, fists, feet and teeth.

Galileo (1564-1642) lived a long, full life because he knew when to "see the light". When push came to shove he 'confessed' to heretical thoughts about the universe in general and our solar system in particular and recanted just before he was to be tried on heresy charges by the Jesuits. Since trial and conviction were synonymous, he would have been forced to join Giordano Bruno, previously roasted at the stake.

Oddly enough, it had been previously resolved by the natural philosophers that the truth concerning what revolved about which was to be determined by whether or not Venus exhibited phases. Galileo, with his new telescope, knew the truth. He could clearly see those phases. This demonstrated that Venus, at least, if not all the planets, directly orbited the sun; not the Earth as Tycho's last epicycle had "proved". However, knowing the truth and being able to prove it are neither ammunition nor armor against the deeply

seated **EBS** in the mind of a selfish and high placed man of authority.

For an example of power politics and total hypocrisy at its worst, while Galileo was finishing his life under church-instituted house arrest (and being cured by “re-education”, a panacea that authority has always been extremely fond of), the ever-hypocritical Jesuits (Mother Church’s science & political wing) were using Copernician theory and his telescopes to accurately predict lunar and solar eclipses for the heathen Chinese Emperor. It is still speculated that they had delusions of converting a billion Chinese to Catholicism, and no doubt ruling the world with this army of converts.

Historically we have the interesting spectacle of the early Christians rejecting the hypocrisy of the orthodox Rabbis and forming their own church under the sign of the fish. The fish evolved into a cross. Then much later, the Lutherans rejected the hypocrisy and the pomp of the Roman Catholic church which had become a political colossus that now sat astride and controlled the western world. Kepler avoided most of the general religious nastiness of the era by being Lutheran, thus not under the control of the Vatican in Rome.

In 1687 Newton released his theory of gravitation. This states that every mass has an intrinsic, somewhat ‘magical’ property to attract all the other mass in the universe simultaneously with a force between each of the masses proportional to their product masses divided by the square of the distance between them. Just why Newton’s equations work, at least locally, is still not understood at all. Nonetheless, this new philosophy ascended to the throne vacated when Ptolemaic astronomy was destroyed. Centuries later, our space age began and NASA’s astronauts reaffirmed our belief in Newtonian gravity.

For over a thousand years much of Christianity reflected the Old Testament wherein God was depicted as ...

a cruel God, a vindictive God, a jealous God!

During that period philosophers believed that our Earth was sculpted by forces that were generated by unbelievable volcanoes, humongous oceanic waves, incredible cyclonic storms, and world-shaking earth quakes. This was the philosophy now called “Catastrophism” and it was in harmony with the religious thought of that time.

But the New Testament unveiled a ...

just and merciful God!

Catastrophism began to fade as the younger geo-philosophers began to believe that our world was molded by slow and subtle processes. This is the philosophy of gradual “Uniformitarianism” and it too, is in harmony with the religious beliefs of our time. Louis Agassiz and Charles Lyell spearheaded this idea and when the smoke of battle had cleared away, Catastrophism was defeated leaving all such thoughts strictly the domain of the unreconstructed basement crackpot.

In some ways our **EBS** helps us to survive. It may be a damn good thing that each of us

can come away clean from a completely objective study.

There are five, not four horsemen of the Apocalypse. War, Famine, Plague, Pestilence and the fifth one, organized Religion!

Five Horsemen



Because of these serious afflictions, large segments of man's slowly gained technical knowledge have been lost time after time. Consider how Eratosthenes' calculation of the Earth's diameter was lost because of Ptolemy, which allowed other pious philosophers to declare that the religious righteous could hear the tinkle of heavenly music made by these rotating spheres. As Christianity gained in numbers, wealth, and power its priests became the new arbiters of science in the west. In the east and northern portion of Africa the Apocalyptic horsemen destroyed a sprouting science. It should be noted that the modern world's first "university" was located in Timbuktoo in North Africa.

The centuries roll by but human nature seems fixed. Although the Vatican's Castrati Chorus has been abolished and the Inquisition is on hold, the priests of today's scientific religion are just as mentally rigid as were their ancestors. I have been actually told by a very brilliant practicing scientist that *"If I were to doubt anything I know, I couldn't get any work done"*. I kid you not!

I couldn't help but notice as I have scurried through this life that "experts" usually add only decimal points to existing knowledge. True breakthroughs are usually accomplished by the efforts of outsiders who, in ignorance, try the impossible. Whether they win, lose, or draw, they are usually called basement crackpots by the priests of modern science. Tesla, whose individual accomplishments exceeded any other in recent history is still regarded as a crackpot by academics because he lacked 'credentials'. Breakthroughs also happen through serendipity, but only to those whose minds are still free and curious.

less and less, until they know absolutely everything about absolutely nothing. When they achieve this exalted state they know every reason why something new cannot be done. With a few pooh-poohs and a couple of tut-tuts they can completely dispense with any new, and therefore impossible, idea. *Science is a closed hermeticism.*

Historically the greatest "assumcrs" have been the natural philosophers! They have proven time and time again, that when it comes to assuming they have no peers. Perhaps the fault lies in the academic system that now turns out degreed experts by the millions and post graduate natural philosophers by the hundreds of thousands. It seems that all aspiring young philosophers must take 6 credits of pooh-pooh and 8 credits of tut-tut before they can graduate. Each academic expert attains his position by being a student whose forte is rote learning. Since the only correct answer to any question is that which the teacher thinks is true, the rote learners always have the right answers and in time they inherit the mantle of expert.

Conversely, thinkers who dare to question the assumptions of the day, are weeded out by their Wizard of Oz teacher, who one day, will himself declare other rote learners as experts. And forever after, each new expert will assume that what he or she has learned by lecture and book decades before is still, and will always be, the ultimate truth.

I know from personal experience that experts have a ritual which they invoke at the first sign of any anomaly that might suggest even a tiny threat to any of their assumptions. They first ejaculate the sacred word "Impossible", which actuates the closing of the titanium doors that guard their mind. Then they take a little peek to see if the heretic who presented the anomaly has been scared away. If not they will recite, like a rosary, whatever physical "Law" that is applicable to the situation. frequently a few which are not. For good measure, they will toss in some erroneous "facts". I have yet to hear an expert say *"Golly-Gee Whiz, that sure is strange. I have to think about this."* Daniel Boorstin said it was the assumptions or illusions of knowledge which were and are man's greatest deterrent to progress. He was so right.

We are directed by our scientific tutors to look back in time and laugh at the beliefs of our ancestors. The experts of today use examples of previous beliefs to show how stupid mankind was before 'science' came to our rescue. Well my ancestors, the common people, were taught their stupidity by the ancestors of today's experts! I agree that my ancestors were just as stupid as we are for accepting much of what we are told. I also firmly believe that someday our descendants will laugh at us for much of what we now believe to be scientific gospel.

The history of the scientific religion is replete with countless examples of leading experts later caught, with their pants down. For example, in 1790, the French Academy of Scientists became tired of unwashed peasants sending them meteorites. They unanimously declared that since there were no rocks in the sky there were no meteorites.

When Wilbur and Orville Wright, two bicycle mechanics, were actually flying at Kittyhawk, the physics professors of the world were still writing in local Sunday newspapers that man could never attain powered flight. Recently, after almost a hundred years

We are never told that many of our scientific “Laws” are based on either unprovable or unproven assumptions. When an accredited philosopher invents a theory that is not defeated by another accredited genius in some reasonable period of time, his theory becomes a scientific law by default. The “proposer” is then elevated to Scientific Saint-hood and his law — now carrying his name — becomes untouchable and unimpeachable. Any future questions concerning it are classed as heresy. In any organization, *“don’t make waves”* is the standing order of the day. Internal dissenters are usually squelched by subtle hints about the common rice bowl. If that fails, they are cast forth.

Organized science is a political organization that acts in many respects like organized religions. Any outsider crass enough to question an expert is inadvertently trampling on that particular group’s collective ego and threatening their collective rice bowls. He becomes an enemy! He will also be called a basement crackpot, since he has interfered with the Emotional Belief System.

Unfortunately, much of our EBS is loaded before our critical reasoning facilities are developed. School systems that consistently reward the rote learner and just as consistently punish the thinker who questions, are great contributors to a society’s uniform EBS.

Religion is the second greatest contributor. Many of us are ultimately brainwashed into blindly accepting authoritarian pronouncements as the gospel. A few resist longer, but in the end most of us learn to confine our critical facilities to problems involving our own self-interest.

Our individual EBS controls what we are allowed to think about, how we think and even what evidence we will consider. This is the reason why new, or startling ideas, or any questioning of basic assumptions is viewed as heresy — and is then met with anger, hostility and irrationality. In the end, an expert who has learned best by rote will choose a pupil, who also learns best by rote, to eventually become the new expert. All organizations strive to preserve the status quo. People with high IQ’s are no more immune to these social processes than are morons.

Sometimes our beliefs are harmless and ridiculous like knocking on wood for good luck or avoiding a black cat to prevent bad luck. However, whenever fanaticism sets in, our beliefs invariably become destructive. Although we generally associate fanaticism with religion, fanatics come in all sizes, shapes, sexes, colors and mental persuasions. There are patriotic, political and even scientific fanatics, all of whom surrender the little critical reasoning they have, to their leaders. Fanatics are especially dangerous because they believe that only they are the possessors of the real truth. Because of this, they are subject to vicious surges of self righteous anger which can blow away their last shred of rationality and logic.

Our modern philosophers have failed to provide room for the criticism that used to be an integral part of science. Instead, they have crowded around the feed-trough of govern-

be understood by anyone but a fellow expert. They believe that any future progress can add only another decimal to already existing knowledge. They also believe that progress can only be made by one of their own — a scholar who carries the proper credentials. However, to believe this, they are very ignorant of the history of their own religion. When any group fails to supply its own criticism, there will inevitably be some nasty outsider, like me, willing to do it for them.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

In the early '40s I made my first visit to New York's Hayden Planetarium, where I was told that the Earth was created, 500 million years before, when a star (obviously male, and obviously in lust) closely approached our poor little virginal Sun. In the orgiastic fury that followed, the interloper using his gravitation, pulled solar eggs from our Sun which he then shot through with star sperm. Once he got what he wanted, he slid out of our neighborhood leaving behind masses of hot solar matter orbiting their mother, the Sun. This matter ultimately cooled and condensed into the celestial bodies of our solar system.

Mating Stars



2 A

That old theory of stellar mating has been replaced by a modern version of the La Place theory. Today we are told that our planets coalesced from dust and rock fragments that were part of a rotating giant cloud that formed both the Sun and its planets. Planets are the part that didn't get sucked into the sun. We are also told this original motion accounts for both the current revolution and rotation of all the solar bodies. But this theory was concocted before we knew that Venus has a retrograde rotation (still unexplained) and that space is filled with radiation, magnetic fields, space dust and other stuff in general. This forever concept of rotation has stuck in my craw like a fish bone for over 45 years.

By the time our philosophers finally accepted the fact that our smoothly spinning world is a sphere, the Earth had been sufficiently mapped to accurately determine that the northern hemisphere contained most of the land masses. Since rocks are heavier than water, it seemed evident to those philosophers that our freely supported Earth was "top heavy". It should "Roll-Over" changing the existing polar axis of rotation and allowing the circumferential line of heaviest mass to form the new equator, thereby attaining dynamic stability. However, since this hadn't happened, although the smooth rotation of the Earth demanded dynamic balance, to balance the load they postulated a hypothetical super-sized southern polar continent which they named Antareticus.

According to geo-physicists who speak of our top heavy world, "*The final position of the pole is one that places the continents as well as possible on top of the equator.*"

Subsequent exploration since the late 1400's produced South Africa, North America and South America. When the exploration reached 60 degrees south, it was acknowledged that "Antarcticus" could not be large enough to balance the Earth's "top heavy" rotation.

Then in 1840 Antarctica was finally discovered. That year an American named Charles Wilkes followed the coast of Antarctica for 1500 miles proving it to be a continent. However, as large as it was it still did not have enough mass to give us the rotational stability which we exhibit.

In 1957, for the first time in human history, almost every nation agreed to cooperate and participate in a year of exploring our entire planet in depth. It was called the International Geophysical Year (IGY). Antarctica received the lion's share of attention. The participating philosophers gathered mountains of data, retired to their citadels and thirtyfive years later are still processing the data. Very little ever trickled down to us peasants.

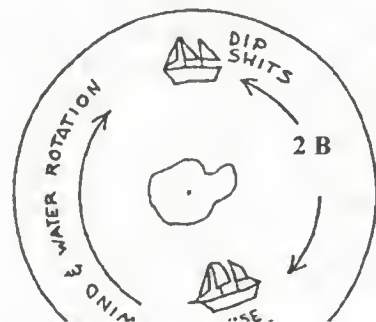
I have heard of only three (other) results of the work done there. The first was the sonic mapping of that continent's topography. The second was that the net vectorial motion of the world's oceans was positive and in the direction of the earth's rotation. The third was that the vectorial motion of the atmosphere was in the same direction as, and exceeding the velocity of the oceans.

Let's examine these other findings of the IGY that pertain to the vectorial velocity of atmosphere and ocean. The motions of the oceans are most pronounced in the frigid seas that encircle Antarctica. At south 40 degree latitude, the Roaring Forties are aptly named. This west to east movement of air and sea was known to the British Navy by the late 1700s and kept as a naval secret for the next 100 years. As a result British warships would be sighted in the Atlantic one day, and a few weeks later would be seen in the Pacific.

Other European naval powers knew that this was — "impossible" so they erroneously assumed that the British had so many warships that they were re-using the names to confuse everyone.

The British Navy was very clever. Instead of fighting, for months on end, the head winds and the head seas of the closest Westward Cape, the Royal Navy would run with the wind and current toward the Eastward Cape. They could change oceans in a matter of weeks. This military secret was kept even from the British commercial interests. As a direct result the merchant fleets of the world suffered thousands of shipwrecks and tens of thousands of marine casualties during those years by continuing to sail westward, into wind and wave because the map distance was shorter.

Wise Brits & Dip Shits



developed the Rene' theory of rotation. I could easily picture the air masses driving the seas toward the east, and the sea in turn driving the Earth's rotation. Each by friction! But what drives the atmosphere? Can it be the solar wind? Nah! Could electricity have a major effect on a planet? Impossible!

Or is it? In August 1972 there occurred the largest observed solar flare of the century. The radiation levels increased dramatically and the following effect was noted. *"Moreover, contrary to general expectation, the eruption (solar) clearly affected the rotation of the earth and thus the length of our days! The day of August 8, 1972 was ten milliseconds longer than August 7. This deviation was greater than any which had yet been measured for the length of a single day. In the weeks that followed, the earth, so to speak "ran slow." Then slowly it regained its old tempo and turned as fast as before."*²

The accepted rate of decrease in rotation for the Earth is about 1.6 milliseconds for a whole century.³ With six times that shift coming in one day, forgive me if I doubt that our rotation is the result of the rotation of any original stellar mass. If our rotation is due to initial inertia, how do we account for the return to normal speed? Once you put the brake to a fly wheel only an input of energy can bring it back to former speed. In this case both the braking effect and the acceleration required incredible energy.

A left hand proof of my frictional rotation should be found in the examination of airless moons. I believe they will be found to have either zero rotation or a very slow one similar to our Moon. Our Moon has a once a month rotation which is exactly equal to its revolution. There is little rotational data on the other moons in our solar system but what there is would seem to indicate that they are also fixed to their periods of revolution..

If Newton and Galileo could see and study the Jovian moons with hand built primitive telescopes, one would think that in the centuries that have passed, just one of our astro-philosophers would have wasted his time in acquiring data on the various moons. The astro-philosophers claim to have super accurate gear with which they tell us all about stars and galaxies billions of light years distant. You would think that just for "drill" as we used to say in the Army, every once in a while, that they would take a quick peek in our back yard.

Some astronomical apologists have claimed that the 200 inch Palomar scope can not focus on something as close as our Moon. As far as I can tell from the second hand astronomy text I recently purchased, there is absolutely no reason why the largest of telescopes cannot focus on the Moon, the planets and their moons. Wouldn't it have been great if the Palomar scope had looked at the Apollo 11 mission site while they fired off a powerful flare? How preoccupied can you get as you learn more and more about less and less?

For 20 years I have cursed the experts who control our large telescopes. They remind me of Big Time Charley, friend of the working girl, who each Friday night blows his whole pay playing big shot. He buys rounds at the local gin-mill while his wife and kids starve at home. Our experts keep trying to see the end of the universe while we starve at home,

would tend to prove that the solar wind interacts with a body with no atmosphere by producing either a very slow rotation or none. Moons with an atmosphere should have a faster rotation.

Time has modified our picture of the universe. The Earth is now estimated to be five billion years old, space has dust in it, and powerful radiation roars throughout space. Space friction must exist and no matter how slight, over a five billion year period of time every planet should have zero rotation.

I predict that each planet's atmosphere, with the exception of Venus, will be found to rotate faster than that planet's surface, thus proving Rene's Rotation. As far as Venus is concerned, if the rotation of the atmosphere is also retrograde then the planet's rotational speed will be found to be increasing. If not, then the planet will be decreasing in rotational speed. I also predict that the decrease will be such that the planet will lose all rotation in a few thousand years. It will then begin to slowly accelerate toward normal rotation.

When you predict, you go way out on a shaky limb and give all your enemies a sharp chain saw and tree climbing spikes. I only hope that my predictions are as accurate as Velikovsky's and not as bad as Newton's.

It should not take a rocket scientist to see that if the net vectorial winds in the direction of rotation exceed the net vectorial ocean currents in that same direction and these also exceed the Earth's rotational speed, then the frictional drag of the seas and the air masses must contribute something to the rotation of our planet. And if we concede something — why not all?

We are taught that the rotation of the Earth is due to the original impetus caused by the circular contraction of the space matter that formed our planet. When I was young, the world was only 500 million years old, and we believed that space was the perfect vacuum and was completely devoid of matter. Ergo, there was no friction to retard our planet and it would rotate forever with no retardation except for the claims of a minuscule degradation in velocity due to the gravitational effects of the Moon. The Earth's rotation is still subject to unaccountable variations in rotation. It speeds up or slows down for no reason we know and in recent years the Astronomical gurus have added several "leap seconds" to compensate for the Earth's slower rotation. I find fault with this assumption because if all gravity is measured and calculated from the dead, exact center (as Newton claims) of the bodies concerned, how can the rotation be affected?

As I grew older the Earth aged much faster than I did. I would add a year or two, but the geo-philosophers would add 100 million years or so to the age of the Earth. My scientific skepticism began to suspect that the original impetus theory was a bit flawed. When the Earth celebrated its billionth birthday I knew, without positive proof, that unless some outside force was applying power, our Earth should long ago have stopped its rotational whirl through the solar system. Isn't it strange that when the Earth was 500 million years old the Moon was degrading our rotational speed by the same amount as it is today when the Earth is billions of years old?

rotational speed, did our philosophers throw out the original impetus theory? Certainly not! They added on an 'epicycle' of strange movements of masses of internal magma to account for it. A spinning ice skater, by bringing his arms closer to his body, can increase his speed of rotation. The geo-philosophers call this the conservation of angular momentum. They figure this as the cause of increased rotation. They suppose that strange and mysterious gnomes inhabit the center of the Earth who magically move mountains of magma. Lo! The Earth's rotation speeds up or slows down accordingly.

A few years ago while reading "The Discoverers", by Daniel Boorstin, I caught a hint of a Faraday machine that might duplicate the driven rotation of objects. The experiment is written up in one of the thirteen Faraday diaries which I tried to locate so that I might poke through them and see whether or not this gadget would make an appropriate model of the solar system. The Newark, NJ Library has them, but unfortunately, they had been microfilmed by a special sub miniature process and the only film reader that could read the text broke, and was thrown away. The interconnected library system produced Howorth's work from the 1890's but failed to get me a copy of the Faraday journals. Someday, when I can afford it, I shall pursue this.

I don't believe that we fully understand the mechanics of rotating bodies. This anomaly takes us back to when we first learned to ride a bicycle. In the beginning that two wheeler was extremely unstable because one had to simultaneously maintain balance and pedal to attain motion. For most of us success came only after someone else balanced us and then gave a shove. As soon as we started to move, the bike became stable even at a very low velocity.

Was this stability due to our momentum or was it from the fly wheel effect of the slowly rotating wheels? We must eliminate the flywheel effect as indicated by the following observation. The old 74 cubic inch Harley Davidson, on which I learned to ride, weighed almost a thousand pounds. Its wheels weighed at least ten times as much as those of a bicycle, and yet both machines attained stability at the same low speed.

If based on the momentum (mass times velocity) the machine weighs 40 times more and should become stable at much lower speeds than the bike but this is simply not the case. However, if you insist that basic stability is due to momentum, then you open up another can of worms.

Let us try a little thought experiment. Somewhere out there in this great big world of ours there is a man, 170 pounds whose only passion in life is riding his 30 pound bicycle. He is determined to pedal his bike all over the world. We first consider our sweating bicyclist pedaling from west to east on a road on the equator in Brazil. His ground speed is five miles per hour, and if we add this to the Earth's equatorial rotational speed of 1035 mph, his total momentum is 200 pounds total weight times 1040 miles per hour. This comes to 208,000 pound miles per hour.

A few months later our imaginary cyclist is freezing his ass off pedaling at 5 miles per hour on a stationary ice field at the 80th parallel north. He is going from east to west, and here the Earth's rotational speed is only 180 miles per hour and his momentum is now

one sixth of that which he had on the equator. Does this mean that he must pedal at 1035 miles per hour to attain the same stability he had at two miles per hour on the equator?

We instinctively realize that this is not true and that neither latitude nor direction has anything to do with stability. If neither momentum nor fly wheel effect account for this increase in stability, what does?

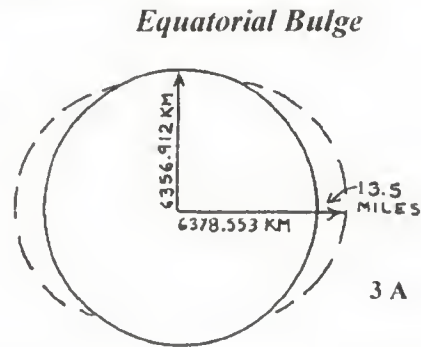
A car taking a curve uncovers another rotational anomaly. We know from experience that the smoothest turning, with the least tire scrub and outward throw to the passengers, results when a car is being slowly accelerated throughout a turn. Driving at a constant velocity or de-accelerating doesn't give the same results. Therefore expert drivers say it's best, whenever possible, to brake on the straight approach to a curve and then gently apply power as one drives through it. You can easily prove that for yourself.

However, by theory, any amount of acceleration should cause higher instantaneous speeds which should increase the tendency to either skid out or overturn the car. Yet this doesn't happen. I haven't the faintest idea why a bike or motorcycle becomes stable at such slow speeds, nor do I understand why acceleration helps smooth out a turn. But it does seem to me (a sneaking suspicion) that something is lacking in our basic understanding of momentum and rotation.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

Without the counterbalancing mass of that hypothetical continent of ‘Antarcticus’, natural philosophers sought another explanation for the smoothness in our observable rotational stability. They postulated a huge deformation girdling our equator in the form of a bulge that supposedly acts as a humongus flywheel, providing the dynamic rotational stability we enjoy. [Yes, I’m aware that our Earth’s rotation isn’t perfectly smooth. There are some (mostly unexplained) wobbles, and the polar axis precesses like a gyroscope — all of which tend to minutely slow down the rotation. Nonetheless, it’s apparently much better at maintaining a constant rotation than anything we can build — no matter how “frictionless” the bearings.] Newton, by using an imaginary water filled tunnel, drilled from the pole to the Earth’s center and thence to the equator, “proved” that the centrifugal force of our rotation gave us a radial bulge of 17.1 miles.¹

Our modern philosophers have tinkered with the bulge over the years shrinking it now by almost 25 %. The “CRC Handbook of Chemistry & Physics” lists the Earth’s polar radius as 6356.912 km and the equatorial radius as 6378.593 km. This reduces the radial bulge to 13.51 miles. More recent values have again decreased it.



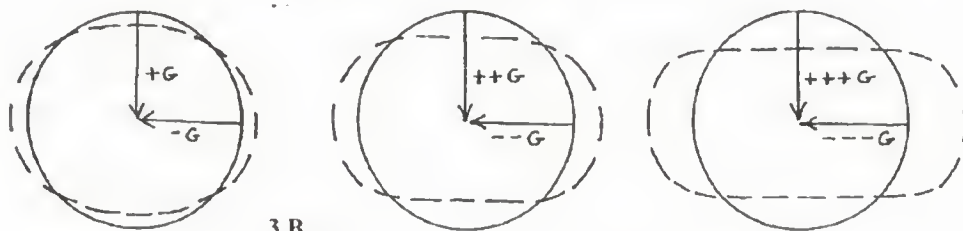
I’ve never believed in the concept of the equatorial bulge. A short time after I first heard of it, I went to a world globe, turned it upside down to verify that all the oceans of the world are hydraulically linked one to the other. In effect, if the bulge exists, there is a 13.5 mile high column of water at the equator. This was so lacking in credibility that I began to trace the concept of the bulge back in time.

The books I’ve read over the years, written by professional philosophers, told me that a French mathematician and peer of Newton by the name of Cassini had taken geodetic measurements and proved that Newton was right. Bullshit! Cassini while running the first long line geodetic survey of modern times, allegedly proved that Newton was wrong, and that the poles were bulged instead of the equator. Cajori has this to say, *“In France Jacques Cassini was misled, by somewhat inaccurate geodetic measurements taken over a comparatively short meridian, to the belief that the Earth was elongated at the poles.”*² Given the crude survey instruments of the time I wonder how anyone measured anything.

Text book explanations of the bulge are very simplistic. They lead one to believe that the bulge is supported only by the centrifugal force generated from the Earth’s rotation. According to the CRC, the centrifugal forces acting at the Earth’s equator amount to a little over 3.3 dynes which is a very tiny force. If it takes 980 dynes to support a gram of water then 3.3 dynes wouldn’t hold up much of a water column. In response to this reasoning, John Cook, a personal friend and fellow Mensan, promptly created the Cas-

behave in the same manner. If these 3 dynes of centrifugal force sent .1 mm of water to the equator this would reduce the level of the polar seas by an equal amount thereby increasing the polar gravitational attraction while diminishing the attraction at the equator. He argued that this upset of balance allows the centrifugal force to draw more water from the poles. This begins a cascade effect that terminates when the equatorial radius is 13.43 miles greater than the polar radius.

CASCADE THEORY SHOWING GRADUAL MOVEMENT OF WATER FROM POLE TO EQUATOR

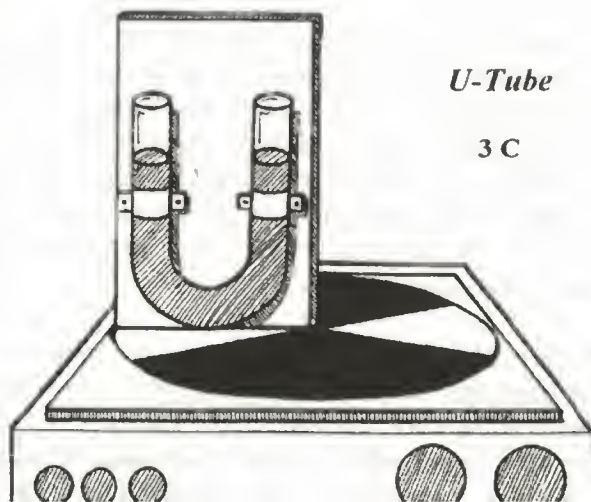


EACH TIME THE BULGE IS BIGGER

Since the equatorial oceans are nowhere near 13 miles deep, the rock of the Earth itself had to be molded into the bulge before the upper mantle cooled enough to lose its plasticity. After performing observational experiments a bit after the turn of the century to measure the crustal tides of the Earth, Michaclson, who measured the speed of light, outraged his contemporary philosophers by reporting that these tides were minimal, and that they were of the same magnitude as would be expected if the Earth were made of cast steel. If the Earth resembles cast steel how can there be an Equatorial bulge of such magnitude?

I decided to actually test the height of water that small forces could support. I cut a piece of cardboard to a 7 inch diameter. To this I mounted a perpendicular piece of rectangular cardboard along the radius, which I started at the center. To this I mounted a piece of transparent plastic tubing shaped as a U. The width of the U was 3 inches (7.62 cm) and it was about 3 inches high. I filled this tube with colored water and arranged it so that the inner leg was very close to the center of the disk.

By calculation, shown below, the actual force when this U-Tube device was placed on a turntable of an old 45 rpm (.75 rps) record player was 160 dynes



$$C \text{ Force} = \frac{\text{---}}{\text{Radius}} \quad \text{where } v = 2 \times \pi \times 7.62 \text{ Rad} \times 1.75 \text{ rps} = 35.9 \text{ cm/sec}^2$$

$$C \text{ Force} = \frac{(35.9) \times (35.9)}{7.62 \text{ cm}} = 169 \text{ dynes}$$

Say what? In my mechanical experiment 169 dynes holds up less than 1 mm of water. But by some arithmetically concocted miracle, Saint Newton makes 3.3 dynes hold up a 13 mile column. The mechanical magnification of rotational cause attributed to the Cascade Effect is almost 22 million to 1. Also, if less than one millimeter of rise caused the bulge, what miracle prevented it from further increase. After all, the Polar Seas still hold lots of water to continue the effect.

The astro-philosophers claim that the Sun also rotates and it too must have a bulge. Although the *CRC Handbook* lists a factor for solar oblateness, the given polar and equatorial diameters don't reflect this. They are relatively equal, and there can be no discernible bulge.

A high school physics teacher sprang some Einstein on me at this point, by claiming the water in the U-tube didn't rise because the system was "non inertial" whatever that means. I reported that when I doubled the speed of rotation, the water visibly rose. I innocently asked just when did the system become "inertial"? I pointed out to him that if the universe is expanding, our galaxy is traveling, our Sun whirling, and our revolving Earth rotating around the Sun, there is nowhere, nohow a "non-inertial" system. In his ignorance of Newton's work, he also disputed that the bulge was due to centrifugal force. He confirms the old saying about them as can — do; them as can't, teach or criticize.

Further calculations showed that a centrifugal force of the same magnitude as those arising from the Earth's rotation could only be produced by using a 6 3/4 inch radius at .07 rps, or a 5 1/4 radius at .08 rps. To actually measure the rise one would need to build the U-tube as an inclined manometer of low slope with a radius of at least 12 inches or use a spiraled tube to shorten the length necessary to read the microscopic increment of rise.

From a table (page F-184 of the *CRC Handbook*) we find that the polar gravity is 983.217 dynes and the equatorial gravity is 978.039 - 3.373 dynes of centrifugal force for a total of 974.666 dynes. Using these figures, Newton's gravitational formula, the g constant of (6.66 -E8), and the mass of the Earth in grams (5.979 E27), we can calculate both polar and equatorial radii.

$$\text{distance}^2 \text{ (cm)} = \frac{\text{gravitational constant} \times \text{mass of Earth (gm)}}{\text{gravitational force (dynes)}}$$

$$\text{new polar radius (cm)} = \frac{6.66 \text{ -E08} \times 5.979 \text{ E27}}{\text{---}} = 6363.949 \text{ km}$$

$$\text{new equatorial radius (cm)} = \frac{6.66 \cdot 10^8 \times 5.979 \cdot 10^{27}}{974.666} = 6391.804 \text{ km}$$

By subtracting the official polar radius as shown in the CRC from the one above we find a new polar radius that is larger:

$$6363.949 \text{ km} - 6356.912 = 7.037 \text{ km}$$

The same process applied to the equatorial radius results in a new equatorial radius that is larger:

$$6391.804 \text{ km} - 6378.553 = 13.251 \text{ km}$$

By subtracting the new equatorial radius from the polar radius we find that the new bulge to be

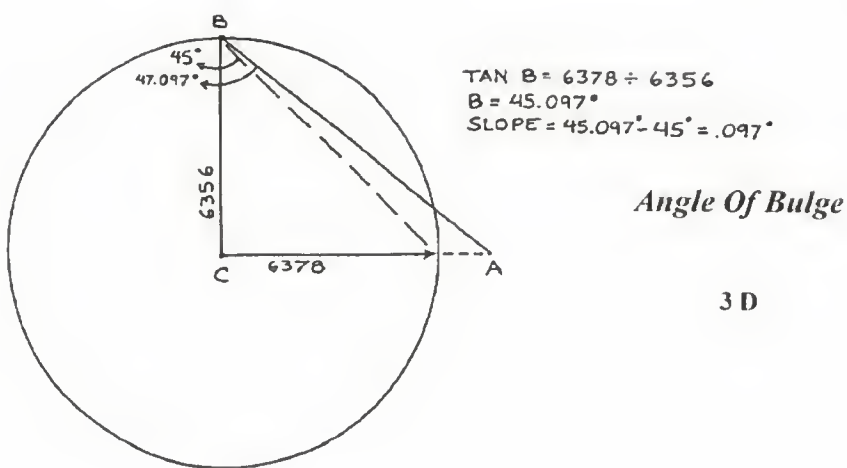
$$6391.804 \text{ km} - 6363.949 \text{ km} = 27.855 \text{ km}$$

This is 17.3 miles, which is slightly larger than Newton's original figure. I needed a method by which I could begin to actually measure the Earth's bulge without having to "borrow" a \$90,000 theodolite. Observation is always a better proof than some mathematical magician's magic. A year or so passed. Then on Saturday July 16, 1988, I awoke in the gray light of dawn with one of the larger organs in my body throbbing and pulsing and swollen with blood.

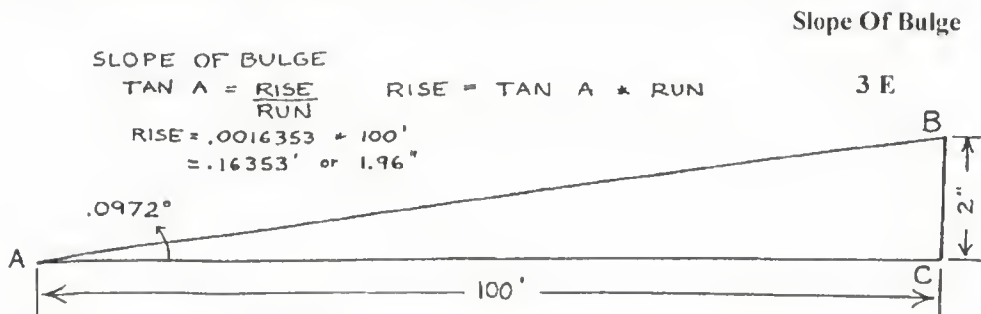
I refer here to my perverted brain. On a younger man, excess blood usually resides in a different location at wake-up. But alas, when you are my age, it takes more than a wake-up to wake, up! My demented mind thought that it saw a way to prove that the Equatorial Bulge was but a Fig-Newton of Isaac's imagination.

That afternoon with the temperature pushing 100, I drove with a friend to Pennsylvania to recover his pet house plants. Between the heat and the smog I was left with burning eyes and a bit of nausea. I spent most of the trip leaned back with my eyes closed mentally re-examining my idea. The day wasn't a total waste because I found no error in either logic or arithmetic in the experiment I had devised to physically measure the equatorial bulge.

Using the drawing below and plane trigonometry, we can determine the tangent of angle B extended to point A, which would be the Earth's surface if there were a bulge. If we divide 6378.553 km by 6356.912 km, we get the tangent of 1.003404. This tangent produces an angle of 45.09736 degrees. However, if there were no bulge then angle B would be exactly 45 degrees. Therefore the slope must be equal to angle B, minus 45 degrees, or .09736 degrees.



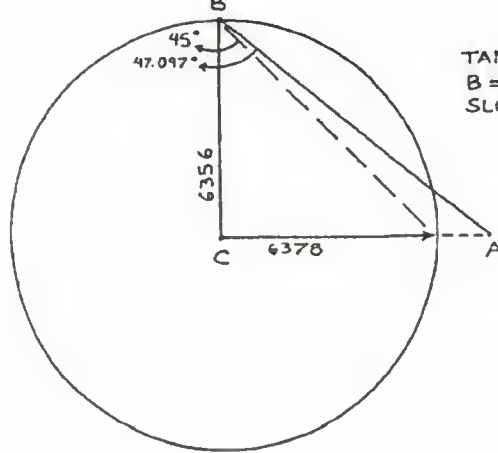
By trig again the tangent of this angle, times a run of 100 feet, would give us a 2.03 inch rise. This angle must represent the average slope of the bulge and we can expect to find some slope near this amount between the 20th and the 60th parallel.



Since we know the average slope we can now test Newton's mathematical proof of the bulge against physical observation. All we need now is a field, over 200 feet on a side, that is flooded with a few inches of water. We set up a low, stable platform in the center of the field. On top of this platform we set up a common builder's level. We level up the instrument and drop a plumb bob to mark the exact center. From that center mark we tape exactly 100 feet in each of the four cardinal directions (North-East-South & West), and set up four vertical stakes. Assume that we've chosen a day without wind, since we wish to mark the exact water level at each of our stakes, without waves or ripples.

We now take the elevation from our instrument's sight path to the water level at the Eastern stake. For this example we find that our cross hairs are 50 inches above the water. When we swing to the West we find this elevation is identical. Next we swing to the North and we should record 52 inches because of the 2 inch drop per 100 foot of run. To the South we should record 48 inches for the same reason. If there is a bulge there must be a slope! But what if all our elevation measurements come out the same?

We've come a long way in our search for the truth. We started out in the Middle Ages looking for the philosophic balancing continent of Antarctica. We saw Newton prove that the Equatorial Bulge existed and we heard Cassini's report that the poles were



$$\begin{aligned} \text{TAN } B &= 6378 \div 6356 \\ B &= 45.097^\circ \\ \text{SLOPE} &= 45.097^\circ - 45^\circ = .097^\circ \end{aligned}$$

Angle Of Bulge

3 D

By trig again the tangent of this angle, times a run of 100 feet, would give us a 2.03 inch rise. This angle must represent the average slope of the bulge and we can expect to find some slope near this amount between the 20th and the 60th parallel.

Slope Of Bulge

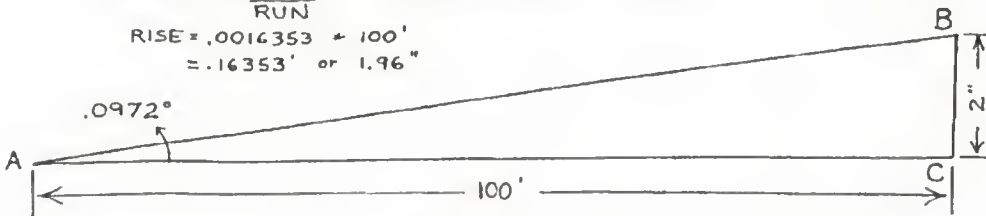
SLOPE OF BULGE

$$\text{TAN } A = \frac{\text{RISE}}{\text{RUN}}$$

$$\text{RISE} = \text{TAN } A * \text{RUN}$$

3 E.

$$\begin{aligned} \text{RISE} &= .0016353 * 100' \\ &= .16353' \text{ or } 1.96'' \end{aligned}$$



Since we know the average slope we can now test Newton's mathematical proof of the bulge against physical observation. All we need now is a field, over 200 feet on a side, that is flooded with a few inches of water. We set up a low, stable platform in the center of the field. On top of this platform we set up a common builder's level. We level up the instrument and drop a plumb bob to mark the exact center. From that center mark we tape exactly 100 feet in each of the four cardinal directions (North-East-South & West), and set up four vertical stakes. Assume that we've chosen a day without wind, since we wish to mark the exact water level at each of our stakes, without waves or ripples.

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hand.

I can state, without any fear of contradiction that no matter the era, no matter the equipment and no matter the latitude, no surveyor has ever recorded such a north/south differential. In the real world of surveying, if any difference in level is noted at even 100 feet of distance (even if only a fraction of an inch) the instrument is sent back for repair. Is there another argument?

Perhaps our instrument cannot measure the slope because the same forces are at work on both ends of the bubble level and the ends of the bodies of water. The level of the water is controlled by both the centrifugal and the gravitational forces and this condition could only exist if the rate of change of both forces remained constant as the latitude changed. The actual gravitational force increases by 5.178 dynes from equator to pole while the centrifugal force is declining from 3.373 dynes at the equator to zero at the poles. There can be no matching differences. So much for that approach!

I tried to actually calculate these forces, but was unable to locate data on the radius of the small circles that constitute each latitude, if the Earth is bulged. I needed this information to determine the exact centrifugal force at various latitudes.

Also, I have conjured up another simple and relatively inexpensive way to find the actual size of the equatorial bulge without nebulous mathematics and theoretical finagle factors. The first thing we need is a geo-synchronous satellite (geographically stationary) whose location is over the ocean. Then we need an astronomical observatory, or even a large portable scope, located 15 to 20 degrees away and as close to the satellite's meridian as possible. It also requires a US navy radar ship.

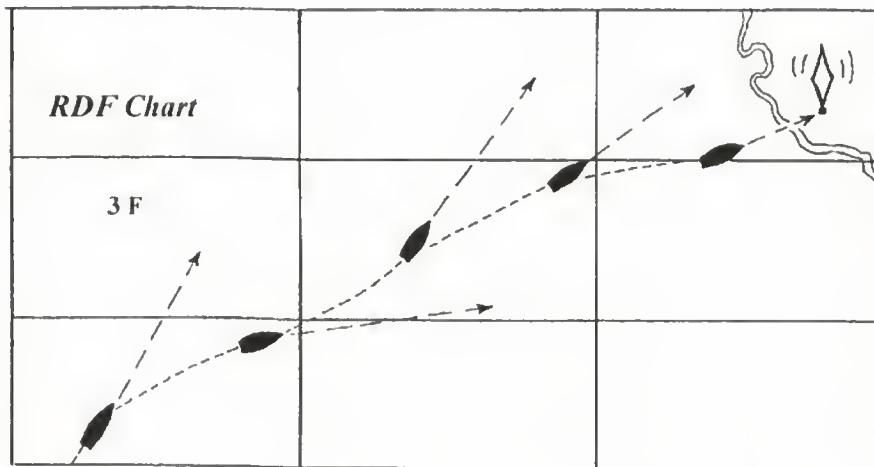
We first position the ship directly below the satellite. Then using simultaneous measurements of the angle of elevation from the telescope to the satellite, and the altitude of the satellite above the ship, we can accurately calculate the bulge. By using simple trig and this data, the bulge could be measured by subtracting the angular altitude from the measured altitude.

I sent a registered letter suggesting this test to Captain Anawalt of the US Naval Observatory. My suggestion was totally ignored. Responding to a similar letter, the British Naval Observatory located at Cambridge, Newton's Alma Mater, gave me the old pooh-poo and a couple of tut-tuts. But at least they answered my letter. A professional astronomer, also a member of Mensa, told me my idea wouldn't work because even big telescopes couldn't see the satellites. Six months later, on the cover of the September '90 issue of "*Sky & Telescope*" magazine various satellites were photographed using a 14 inch reflector telescope.

I have also been told by another Mensan that radio-telescopes have "proven" that Newton's bulge exists. The Philosophers who operate the radio telescopes bombard us with their great discoveries. They claim they can measure the movement of the Earth's tectonic plates and that they also detect a microscopic wobble of the Earth with a period of two weeks and a movement of less than two feet. This type of freely flowing verbal

I call this ‘bullshit’ because I used, in the age before Loran, Radio Direction Finders (RDF) on small fishing boats. RDF isn’t too accurate, but the inaccuracy has nothing to do with technology or the frequencies used. RDF is inaccurate because electro-magnetic radiation is subjected to three dimensional distortion by other magnetic and electric fields. The best results that can be obtained on large naval vessels, running the best equipment with highly trained operators, is plus or minus two degrees at 150 miles range.³

The drawing below traces an exaggerated path of a boat following such a radio signal. There is no doubt that if you follow the signal all the way in, you will reach the tower. But the accuracy of each sequential heading toward that tower is both distance and interference dependent.



There is also the fading and increasing of common radio signals here on Earth. Do you think you it’s possible to point a directional antenna at these shifting, drifting transitory signals, and absolutely locate the transmitter? We know that space is filled with wandering electro-magnetic fields. But if gravity affects light (per Einstein), it must also affect radio waves.

You cannot aim an antenna into space with precision and say with any accuracy what direction a signal comes from. Loran signals which originate within a few thousand miles from the user right here on Earth have a repeatability in reading of 50 yards but a possible error in position of 1500 feet.⁴ Arrays of large radio telescopes, like the Very Large Array (VLA in New Mexico) are tuned individually to a specific stellar target. When accuracy of location is desired, the aiming results are averaged. To me, this is like trying to predict the exact path a pin ball will take after it hits the second bumper.

Do you still believe that our geophysical philosophers know what they are talking about? Map makers have long known that large area maps never overlay. Is this because they have added corrections for a bulge that is a figment of Isaac Newton’s imagination? Despite the philosophical claims about the size of the bulge and the philosophers knowledge of gravity, they can not yet get their experimental value of gravity to agree with the alleged shape and size of the Earth.

because Newton "proved" it existed. If he was right, why can large scale charts not be brought into agreement? Perhaps Cassini was chiding the severe and humorless Newton with a bit of Gaelic wit when he insisted that the poles were bulged.

I know that an equatorial bulge must exist. My only argument is its magnitude! I speak in terms of millimeters and the philosophers talk about miles because they know that our stability depends on some mechanism.

I have twice exercised futility in attempting to get a high school physics class to do some of the simple experiments I performed. Each time the principal had me interviewed by the head of the science department. I have zero talent for this kind of thing and each time I spent days polishing up a presentation, which I was never subsequently allowed to give. Each time I was classed as a wayward student who needed to be straightened out. The first time, I was twice as old as the biology teacher who headed the science department. But it made no difference.

The last time, a rather prim person used the same imaginary tunnels by which Newton had calculated the bulge to be 17.1 miles. This guy verbally used those same tunnels as a proof that no matter the size of the bulge, it could not be determined by this method. Again I was a wayward student to be brought back to the fold.

I never managed to hold their attention long enough to stop them from doing all the talking. My last attempt proved to be a further exercise in futility, but it did bear some fruit. On the last day, before our appointment, I found a way to reduce our belief in the equatorial bulge to an absurdity by creating an irrefutable arithmetic determination of the size of both the polar and equatorial radii that is not in agreement with the accepted value. Please understand that the following is tongue in cheek because I don't believe in the bulge. However, if there is one then it must be the size outlined below.

The logic is simply that unless the forces on polar and equatorial oceans are exactly balanced, the waters of the equatorial seas would either continuously increase or decrease thereby draining dry the polar seas. If not, they would drain themselves down by returning water to the poles. Thus the polar gravitational force has to equal the equatorial gravitational force minus the rotational force.

Using only the data from the CRC Handbook on the accepted radii, the law of gravity, and the formula for centrifugal force, I wrote a program to find where the radii of balance were. Printed below is a section of the table the program produced.

RADII OF BALANCE

E Radius (km)	E G F (dynes)	P Radius (km)	Polar G F (dynes)	C F (dynes)	E G F (dynes)
6373.194	983.736	6362.271	980.3668	3.3705	980.3652
6373.195	983.736	6362.270	980.3664	3.3705	980.3656
6373.196	983.736	6362.269	980.3660	3.3705	980.3658
6373.197	983.737	6362.268	980.3658	3.3705	980.3662
6373.198	983.737	6362.267	980.3654	3.3705	980.3666

The equatorial radius must be 6373.197 km and the polar 6362.269 km leaving a bulge of exactly 10.927 km or 6.79 miles. For you geologists, this is 50 % smaller than the 13.51 miles found in the books. Each time we set out to find the dimensions of **the bulge** we wind up with still another answer. These radii are about as slippery as an eel in a mud puddle.

However, if there is no bulge (or a very small one) we are left with the original question. What makes our axis so stable? If there is only a little bulge we must be then held fixed in space by some type of bearings which we will examine in the next section.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

In the early winter of 1997, Topecon Inc., a manufacturer of geodetic survey equipment loaned me a theodolite and a survey grade GPS. I named the observations the Orion experiment and it is found on page 177.

1. p. 427, "NEWTON'S PRINCIPIA", Cajori, University of California Press, 1934

2 p. 664, *Ibid.*

3. 222, "AMERICAN PRACTICAL NAVIGATOR", Bendish, US Government Document, 1977

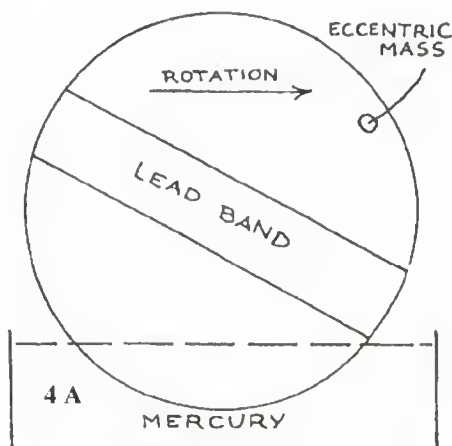
In "Cataclysms of the Earth" author Hugh Auchincloss Brown (HAB) believed in the Earth's bulge. He speculated that, despite the bulge, the Earth did periodically "Roll-Over", thus changing the polar axis and acquiring a new equator. He postulated that the mechanism was usually the vast accumulations of polar ice whose centers of gravity were displaced from the axis, and whose off-center rotation would thereby provide a force that would drive them to become the new equator.

A few years ago, I foolishly tried to prove that an unbalanced load at a pole should be able to topple a freely supported rotating Earth, despite a significant equatorial bulge. For \$ 10 I purchased a second-hand 16-pound bowling ball to become my model of a planet. I had a friend use his lathe to groove out a healthy channel around the equatorial circumference, which we filled evenly with over a pound of lead. We thus turned the bowling ball into a model of a planet with an incredibly massive bulge. Next, we drilled a hole an inch from the poles and filled it with an ounce of lead, creating a load eccentric to the pole. This represented the center of gravity of say, a polar ice mass.

According to HAB this eccentric load would cause the ball to roll-over against the stabilizing force provided by the lead bulge. The problem was to provide freely-supported bearings to simulate floating in space. My first choice was a tub of mercury. But I estimated that I'd need over a hundred dollars worth of liquid mercury to float the ball and allow it to be freely rotated.

I knew it would float on mercury, since even lead floats on mercury. However, since a floating object displaces its own weight, I would probably need over 20 pounds of mercury. Mercury is more expensive than silver. For weeks I wondered how I could beg, borrow, or steal sufficient mercury for the job. At night I dreamed about going into a 'mercury bank', grabbing the 20 pounds of mercury I needed and running like hell. In my dreams I forget I'm crippled!

Tilting Ball



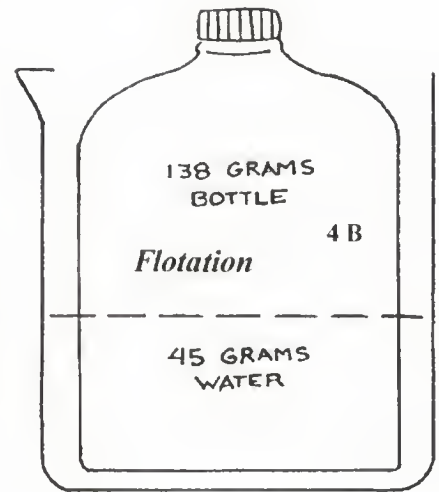
However, one day a stray thought did visit. Could I fool the ball and float it in less than its weight in mercury? What would happen if I placed a slightly larger form, molded to the ball's shape, under it. Suppose I used only about .015 of an inch of clearance. Calculation showed that the ball would sink into the mercury less than 2 inches. If my idea were valid only 7 ounces of mercury would be required. Could the physics books, which clearly state that a floating object must displace its weight in supporting fluid, be wrong?

To test the oddball, but practical idea, I took a 400 ml beaker and then found a half empty plastic power steering fluid container that would fit inside it. The container

the container, I weighed it and found it was floating 138 grams of mass on 45 grams of water.

If I had fooled the water, then I could fool the mercury. And I could do much better if the outer diameter of the container conformed to the inner diameter of the beaker.

It took a few days but I finally figured out that, contrary to what the physics books state, an object floats because the per unit hydraulic pressure due to the height of the surrounding liquid supports the bottom of the floating object. Philosophers should rewrite their physics books.



I have since found out that when they manufacture bowling balls, an extra weight is cast internally into the otherwise homogenous material. This gives each ball a preferred line of heaviest mass, which is necessary so that finger holes can be later drilled in reference to this line. After manufacturing, the exact position of the extra mass that has been embedded can no longer be determined. So the ball is placed in a fixture and floated on mercury where it is rotated. Spinning the ball forces the ball to "Roll-Over", by allowing the line of heaviest mass to form its new equator. The top pole of rotation is then stamped with a mark, indicating where the finger holes should be located and drilled.

As fate would have it, before I could come up with the mercury and make the formed bowl we had moved to Florida. The heavy bowling ball was left behind, but not before we attempted to test it by supporting it on a series of strange supports.

My first try involved three single ball conveyor bearings in a triangle. I wound a string around the ball's equator and gave it a yank. When it dropped onto the bearings it immediately screeched to a grinding halt. Failure # 1! It took a little while to figure out that those single ball conveyor bearings were supported by another set of bearings underneath. Bearings only work without skidding, when the rotation is in the direction of the bearing race. If it is across the bearing there is more friction.

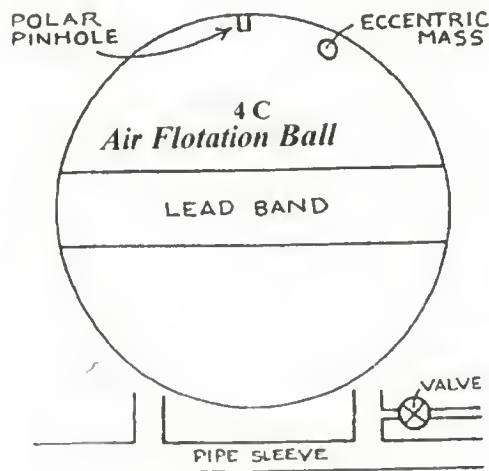
A new plan of attack was needed. I contacted Brunswick Corporation and spoke with A.J. Dabrowski, the project manager for the ball manufacturing division. He told me that the balls were no longer floated and rotated on mercury to find their natural poles. Now they used a bearing of high pressure air ... it was cheaper, cleaner and faster.

Ahah! I could do that! I figured I would create an air bearing and float the ball. I bought a large pipe coupling for another 10 bucks and then had a chamfer turned on the top edge to throttle the escaping air. The original set screw hole was re-tapped to hold a \$5 gas cock to control the air feed. I used silicon rubber as a gasket and bolted the sleeve down to a board. Then I took it to a friend's garage to be tested.

what I thought. However, the unit continued to emit a Bronx cheer, — a raspberry sound which only intensified when I tried to spin the ball. It, too, ground to an immediate halt. Failure # 2!

Later I figured out that the surface of the ball and the chamfer of the top edge of that former pipe coupling had, more or less, caused the air to pass between two parallel plates. This had induced a resonance of about 25 cycles per second. It was causing the ball's surface to act as a flute reed, vibrating the ball up and down. This was what made the raspberry noise while increasing the friction between ball and sleeve on the down strokes. Instead of making a neat air bearing all I'd done was create an elaborate "whoopie" cushion!

Hell! But I could beat that too! I would create a sharp edge at the top of the bearing. So I took a large tomato can and fastened in an air feed pipe which I aimed down. The can's length provided a large plenum to stabilize the flow of air. I also packed the lower chamber with steel wool and put a pierced baffle plate over it. I knew that the sharp top lip of the can would greatly reduce the frequency of oscillation, and I hoped that all those baffles would also reduce the vibration. Test day came and I cranked in the air. Now the sonuvagun thought it was a



seventeen pound jack hammer! It began to pound the heavy metal table on which it sat about 4 times a second. You could have set a clock by it! I had succeeded in reducing the frequency of oscillation but it was still — Failure # 3!

Okay, dammit, I could still beat it. I would make a water bearing, since water is much denser than air and offers more resistance to high frequency waves. I would use a much lower pressure and thereby cut the discharge velocity. This should also lower the frequency. So I changed the fittings (another \$10 I didn't have) and then jacked in a garden hose. The ball floated and then spun to the side of the rim and plastered itself against it. Failure # 4! This documentation of the experimental process is not meant to try the reader's patience, so bear with me. There is a happy ending.

In Florida I tried again to overpower a rotating bulge with a load eccentric to the pole. This time I built a 6 inch circular flywheel out of a one inch thick board. I used a piece of 1/2 inch dowel as a shaft, and I rounded the lower end so that it could be restrained in an oiled mating hole in a base board, thereby restraining it to one location. By using a length of string, like winding a toy gyroscope, I could spin it up to a fast rotation.

I drilled a hole down the center of the top of the shaft and bored a funnel into it. On an

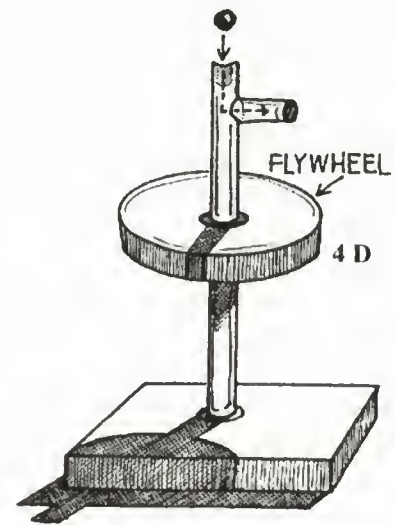
while the unit was rotating. This would act as an eccentric load. Then I tried it. All that happened was that the flywheel developed a slight wobble. It did not overpower the unit and “Roll-Over” as HAB predicted.

To begin my next adventure I had to wangle my way into a machine shop. A few miles down the road there was an open shed welding and machine shop that also had a nice scrap pile of steel shapes. I’d purchased a few pieces of scrap material and had gotten to know Larry, the owner. One day I gave him a copy of the original “Mensa Lectures” and we became friendly. I jokingly explained that I was on a mission from God. He laughed, but before I knew it I was on a lathe, fabricating a metal flywheel and shaft. I mounted this fly-wheel with two pivot joints, fixing it inside a plastic ring made from a collar sawed from a 3 inch plastic pipe. Next I cut another ring from a 3.5 inch piece of PVC pipe and suspended that around the other piece with two more pivots. Thus, I created my own gyroscope with two sets of gimbals, leaving the flywheel free to change direction of spin at will.

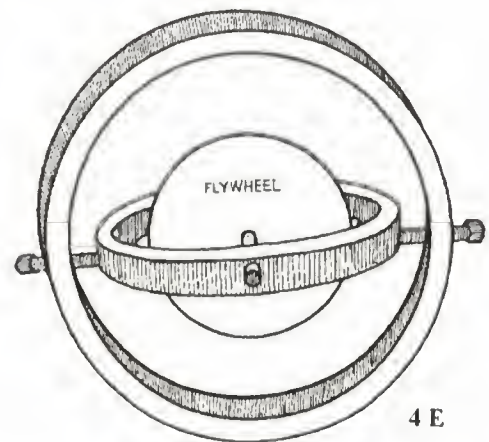
To the outer ring I tied a loop of string, so that I could suspend the unit and wind up the string by twisting the unit. When the unit is let free it starts to spin. By placing the flywheel shaft perpendicular to the string the flywheel spins like a penny on a table until it gains sufficient spin. Then, faster than the eye can follow, smoothly “Rolls-Over” and spins perpendicular to the string.

This finally convinced me of what everybody else had known for centuries. If the Earth has an equatorial bulge, no amount of eccentric loading near the poles could cause it to “Roll-Over.” However, as we will discover later, there is a massive amount of evidence that our world has indeed “Rolled-Over”. If there is no bulge, then it must be fixed and held stable by some type of bearings, Rene’ Bearings. Then if this is true, our Earth must have either a daily wobble, or it must thump as do all other unbalanced and rigidly fixed rotating masses. The thumps are discussed in the next section.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.



Gimballed Flywheel



The Earth is a sphere that rotates at an appreciable clip. If we take a three foot fan rotating at 1050 rpm, we find that a point on the periphery is moving at about 112 miles per hour. If we take a chunk from the end of one blade, we would induce a vibration. This vibration might be held in check by the shaft bearings, but a thump would be evident. However, if our fan did not have bearings, but was rotating in free space, it would wobble in order to relieve the imbalance. Also, it would no longer thump! Yet our high speed fan is a tinker-toy in comparison to the rotational speed of our dynamically unbalanced Earth's equator. It rotates to meet fate at over 1000 miles per hour without a daily wobble!

Let's try an experiment using only our minds. Suppose that at this instant, by some miracle, the Earth is in perfect dynamic balance. Then suppose one of the Antarctic ice shelves calves an ice berg the size of the State of New Jersey, which is entirely possible. Simultaneously, a volcano blows a whole tropical island into dust dispersing in the atmosphere, while a modern reservoir is being filled with water some place else. Another earthquake breaks an earth dam somewhere, and a whole lake flows to the sea, just as a sandstorm rearranges a desert by blowing a few cubic miles of sand away. This may seem an unlikely scenario but similar mass moving events happen daily. We have just lost perfect balance, a fact that has been long ignored by our modern philosophers.

Our thought experiment proves our Earth cannot be in dynamic balance. Any unbalanced rotating mass must wobble, unless the axis is tightly restrained by bearings, and then it must thump against its bearings. The period of the thump, or wobble, must be related to the period of rotation as well as the magnitude of the disturbances. These, admittedly, may be such that only very sensitive instruments will be able to detect them.

However, almost every tire dealer in the country now has a dynamic wheel-balancing machine that not only detects very slight imbalances, but also tells the mechanic what size tire balancing weights to snap on and exactly where to place them. This machine works by detecting stresses which result in microscopic deformations in the thick drive shaft. Sensors translate these movements into data, which the machine's CPU then uses to calculate the masses and positions that will balance your wheels.

I contacted an engineer working for the American Hofmann Corporation. This firm specializes in wheel balancing machinery, and he wrote, *"What we can say is that if a body is spinning, it will rotate about its center of mass unless constrained otherwise, such as by a shaft with bearings ... If the center of mass does not lie on the axis joining the centers of the bearings, then forces will be exerted on the bearings when the rotor spins. If the bearings are not rigidly connected to infinite mass, then the bearing housings will vibrate."*

But our philosophers assume that any Equatorial Bulge exactly cancels any effects from imbalance. A rotating wheel and tire constitutes a flywheel, and as you can see from the engineer's statement this is patently untrue. The flywheel effect alone can not compensate for dynamic unbalance. For many years I had assumed that our out of balance

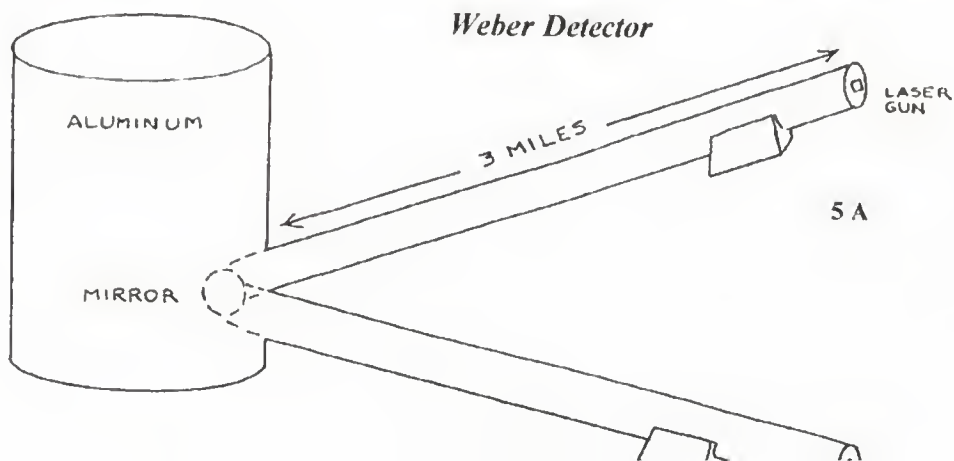
condition, no matter how little or great, would register as a daily wobble. Decades passed, and technology improved to the point where even a minute wobble should have been detected. When I became positive that this wobble did not exist, I was forced to the conclusion that our polar axis is held by some type of bearings — whether they be magnetic, electrical or provided by some force we have yet to discover. I call them Rcne' Bearings. Either that or the entire Earth is cradled by the matrix of space itself which somehow acts as bearings. But no matter the type of bearings, our dynamically unbalanced Earth should thump with a period somehow related to its rotation.

On January 17, 1984, the New York Times ran a feature story on a 15 year old scientific snipe hunt. The story really began over 70 years ago with Einstein's elusive gravity waves. These waves are assumed to be composed of 'gravitons' which travel at the speed of light and are the particles that propagate the force of gravity.

Neither the gravity waves, nor the "gravitons", have ever been detected. Astro-physics philosophers figured the waves were too weak, and subsequently decided that extra strong gravity waves would be generated by either supernova being converted into a black hole, or by the simpler collapse of a giant exploding star. Supernovas are extremely rare. So they logically decided to concentrate their efforts on giant collapsing exploding stars which I shall hereafter, sarcastically, refer to as— explo-lapsers. The philosophers believed that with billions of galaxies in the universe, there ought to be a detectable explosion most of the time. They also believed that during such an explosion, the star in question will change its shape from football to pancake 1000 times a second.

In 1969 Joseph Weber of the University of Maryland began the gravity wave snipe hunt when he responded to this theory by creating an instrument called the Weber Detector. The apparatus consists of a large, vertical, aluminum cylinder, standing at the right angle junction of two long tubes. The entire apparatus is shock-absorber mounted to be as vibration free as possible.

The cylinder is dimensioned to resonate at 1000 cycles per second. A laser beam is bounced from the end of one tube to the end of the other by reflecting from a mirror at their junction in the main cylinder. Any motion is then led to a Michelson interferometer,



should shake the tubes and the cylinder, this too will be detected. ¹

By the time 1984 rolled around, each sequential failure of the Weber detectors was met with increased determination to build detectors with bigger cylinders and longer tubes. On the model we are speaking of, the tubes are 3 miles long. Gigantic Weber detectors located near Rome and Geneva, were finally detecting disturbances. Eureka! Gravity waves at last!

view of lines and satellites

Then came the sting! Almost 718 minutes later another exploding star was detected shaking the universe. And every 718 minutes thereafter the detectors reported that the universe was being shaken. In the article that Mensa never printed all those years before, I had claimed that this vibration was somehow linked to the sidereal day. The same national Chairman of Mensa who gave me all that grief about the original book wrote me to the effect that 718 minutes was *"a strange number that doesn't quite tie into the earth's rotation."*

A sidereal day is the time that it takes the Earth to rotate once. The period of rotation is 23 hr - 56 min - 4.5 sec. This totals 86164.5 seconds, half of which is 43,082.25 sec or 718.0375 min. The difference is .0375 which amounts to .005%. Not being a "scientist", like Rudolph, I believe that's close enough for the popular press.

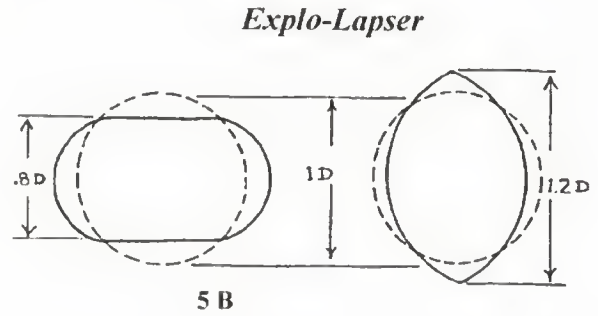
Weber claimed to have succeeded in detecting these very elusive gravity waves. But his claims were premature. I found out, after this book was originally published, that by 1973 the periodic thumps had displayed a 12 hour periodicity, and had been officially tied to the Earth's rotation. ² In this age of Orwellian "Newspeak" these experiments were reported as great successes. However, in reality, they were some of the most crushing defeats ever suffered by organized science attempting to verify a "theory". They had spent hundreds of millions and serendipitously found the thumps needed to corroborate my theory that the Earth's axis is fixed by bearings, specifically Rene' Bearings. I know nothing of the nature of these bearings but I suspect they're electro-magnetic. Isn't everything?

These spectacular failures were not caused by flaws in the Weber detectors, but by the theory behind them. Any object can only change its shape by movement of its mass. By Einstein's decree the velocity of any mass is limited to the speed of light. If it can be shown that the velocity of any mass, even stellar material, has exceeded this limit, then Einstein's elegant Relativity Theories join Ptolemy's geo-centric universe as philosophical garbage.

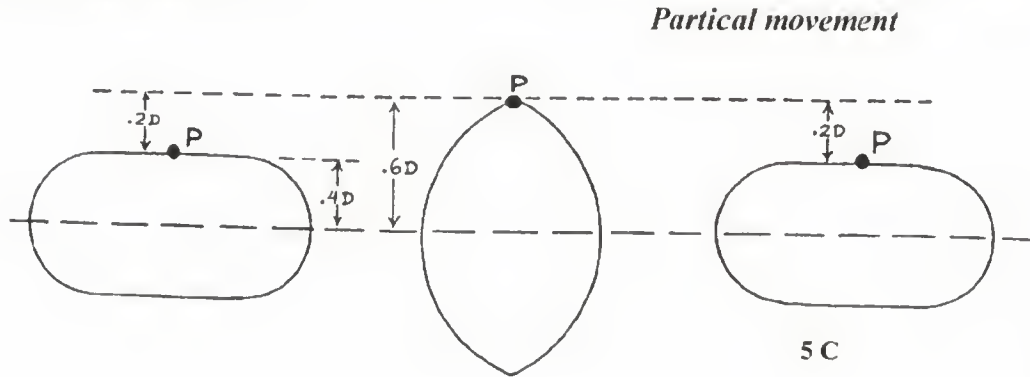
To simplify this matter, I shall conveniently forget Einstein's other rules regarding the volume of mass at extremely high velocities and assume that, in an exploding star, matter can move up to the speed of light. Under these conditions, there must be some maximum diameter that an explo-lapser can have while it changes shape, 1000 times per second from football to pancake. If that star is larger than this critical diameter then some parts of its mass must move faster than the speed of light. This would void the very "LAW" that this experiment was designed to prove!

no matter what parameters are chosen, the cry of "Not so!" is sure to be raised.

The philosophers will complain that the words, "football" and "pancake" are only symbolic approximations. However, in an attempt to be fair, I limited the 'football' to a length 1.2 times the star's diameter and the 'pancake' to height of .8 diameters. That leaves us with a short football and a very fat pancake.



My first attempt at solving this problem involved volumetric changes. Six hours later I was buried in a ream of scrap paper, and I had given up in total confusion. The following morning, with the dawn, I saw the light. If the first change from sphere to football was ignored, it became obvious that a particle of mass had to move from the top center of the pancake to the nose of the football and then back to the top center of the pancake to complete one cycle.



The previous sketch shows the movement of particle P during one cycle. Particle P must move .2 diameters up and .2 diameters down for a total movement of .4 diameters per cycle.

In one second the total movement must be 400 diameters and if we divide this into the speed of light, we find that the maximum diameter that any giant explo-lapsing star can be is 465 miles. This is a giant star???

$$\text{Maximum Diameter} = 186,000 \text{ miles per sec} / 400 \text{ diameters per second} = 465 \text{ miles}$$

Even if we reduced our parameters to a football of 1.1 diameters and a pancake of .9 diameters our giant star would still be less than 1000 miles in diameter. Our Sun, if the philosophers are correct, is only medium sized but a shape distortion of only .04 % at 1000 cycles would negate the Theory of Relativity as the movement of some particles would then exceed the speed of light.

In the last decade the

error, or expenditure of public funds, in an attempt to change the Theory of Relativity into the Law of Relativity by detecting those elusive "gravity waves".

In February '84, I prepared a short paper on the Weber Gravity Detectors. This was dutifully ignored by all the journals I wrote to. The June '87 issue of the "*Scientific American*" carried an article written by four men, three Ph.D.s and one with only a master's degree in physics. Each one of them was an expert on the never yet detected gravity wave. In nine pages complete with full color illustrations and diagrams, they describe the wonders that will be discovered when the various governments of the world donate a few more hundred millions, to create larger and more sensitive Weber Detectors. Never once did they mention the sidereal thumps of the huge detectors already at work in Rome and Geneva.

I wrote an article specifically for "*Scientific American*" in rebuttal to this article. During a phone conversation with the Editor of the magazine, he claimed that he was only a poor journalist doing the best he could and that he had no choice but to rely solely on the credentials of the writers for their material. I reminded him that I had read and enjoyed his magazine when it was understandable to laymen with some knowledge of science. But I also noted that this current "reliance" on scientific credentials had caused much of the writing in his magazine to pass into the realm where only another so-called expert could understand the subject matter. His magazine is not a specialized scientific journal and I feel that if science writers cannot transmit a concept to me in plain English, then they are probably out of their element. People who intentionally obfuscate their meaning with 'wrong speak' want their readers to "*bamastanin the framastats to cause the kanoddle to wronce.*" *Talmudic lawyer interference speak*

Three hundred years ago when Newton postulated gravity, he clearly stated that he did not know whether the force would be found to be attractive or repulsive but only that it must exist. Like him, I don't know whether Rene' bearings affix our planetary axis, or if an unknown field cushions the whole Earth. Nor do I know if this force is magnetic, electrical or a yet to be discovered force. Nor do I care that recognizing the very existence of these bearings constitutes an attack on three hundred years of celestial mechanics. I only know that the Rene' Bearings must exist!

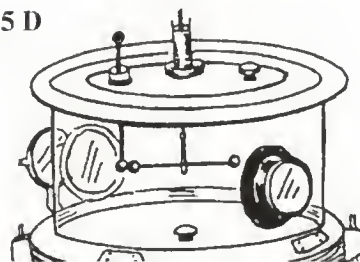
Newton allegedly solved the puzzle of gravity 300 years ago by declaring that gravity was caused by the innate attraction of one mass for another. That general force is proportional to the product of the masses involved and inversely proportional to the square of the distances between them.

Torsion Balance

$$\text{Gravitational Force} = \frac{\text{mass \#1} \times \text{mass \#2}}{\text{distance} \times \text{distance}}$$

John Michell later invented the torsion balance, which in 1785 Coulomb used to measure electrostatic forces. These forces are measured by the twisting of the long supporting wire according to Hooke's law of the stress and deformation in

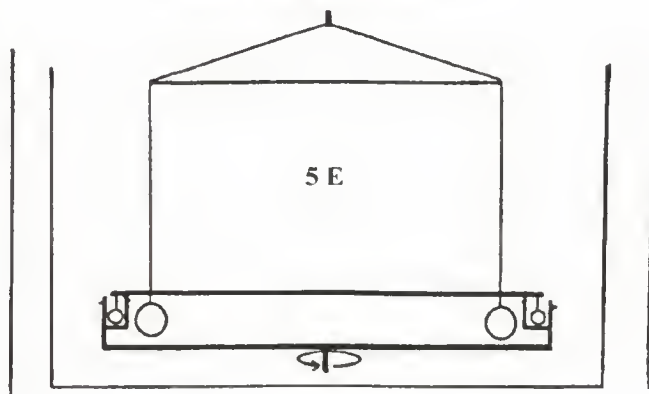
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rate for a spring scale in scientific work but is accepted for measuring electrical charges and weighing the Earth.

Cavendish Balance

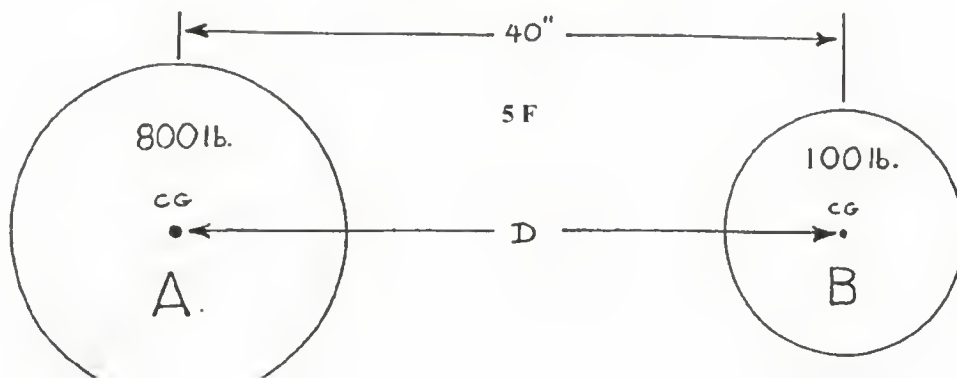
In 1794 Cavendish modified a torsion balance to measure gravitational effects. Coulomb had made no effort to shield the apparatus from the effects of gravity as he considered them to be too minute to affect his testing. The suspending wire on the Cavendish balance was long and today's philosophers tell me that there is a natural voltage difference of 10 to 80 volts for every foot of elevation anywhere on Earth.³



Like Coulomb, Cavendish made no attempt to shield his balance from electrical effects. But also he didn't apply any finagle factors. (I was failing college physics lab until I learned to apply finagle factors to my experimental data, the same as everyone else.) Could some of the force that deviated his Cavendish's balls have been electro-static? Bear in mind that the electric forces are incredibly stronger than those of gravity. If we admit to some — why not ... all?

What originally attracted my skepticism was the fact that writers fail to agree on the composition of Cavendish's balls. He has balls of iron one says; He has balls of lead, writes another; No! He has golden balls, avers a third. Perhaps like Joseph's Biblical coat he had balls of every color! How did he measure and weigh his balls so accurately that his original figures basically agree with today's estimates? Has everyone repeated his errors? His experimental results were released posthumously by his wife. Even the experiment itself was suggested by his parish priest but, of course, no credit is extended to him.

Cavendish's Balls



Another of Newton's errors was in calculating the distance of mass from mass. In essence, the original Cavendish experiment totally ignored Newton's theorem and measured the force between two masses as shown.

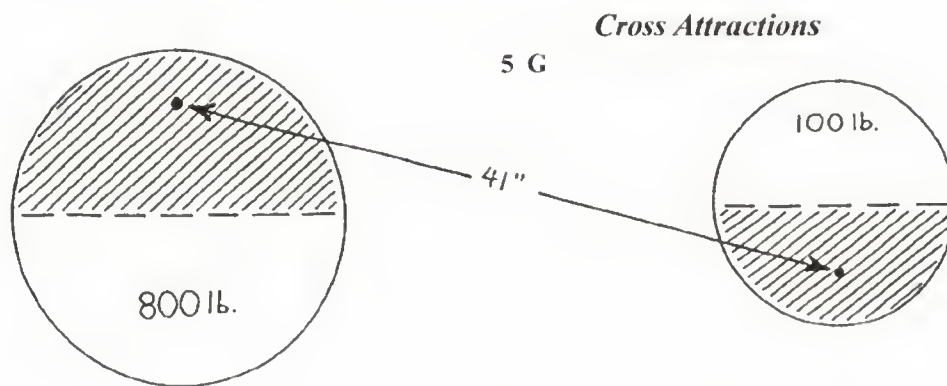
My previous complaints about Saint Newton are small potatoes compared to my major complaint. I have read a great deal of Newton's "Principia" and I find this amazing information: *"If to every point of a spherical surface there tend equal centripetal forces decreasing as to the square of the distances from those points, I say, that a corpuscle placed within that surface will not be attracted by those forces anyway."* ⁴

What this means is that there is mysteriously no attraction of any particle of mass for any other particle of mass residing in a mono-molecular layer. How one would decide the boundaries of this strange effect I do not presume to know. Later, in Anomaly # 12 in Chapter 7, I will show the most probable reason for this amazing sentence.

For the sake of calculation assume that the mass of ball A is 800 pounds and the mass of ball B is 100 pounds. The distance between the centers is 40 inches. For ease in computation I have eliminated g from the calculations. Therefore by Newton's Law of Gravitation the general force will be:

$$\text{Force} = \frac{800 \times 100}{40 \times 40} = \frac{80000}{1600} = 50$$

If we accept this reasoning, then we must agree that each of the Cavendish balls (and the Earth itself for that matter) is also composed of concentric mono-molecular spherical



shells. Looking at the sketch we see that each molecular layer of each concentric layer of the individual spheres is a part of a larger concentric shell and therefore part of the same layer. In which case, if Newton is right, none of the molecules of any layer can attract any molecules of that particular layer, so the only attraction possible is the cross attraction of the top hemisphere of each ball for the bottom hemisphere of the other ball.

We see that the distance between the center of gravity of each set of hemispheres is greater than the original distance between the centers of the spheres. We see also that the

$$\text{Force} = \frac{400 \times 50}{41 \times 41} = \frac{20000}{1681} = 11.897 \times 2 = 23.97$$

This is about one half of the force found by the Cavendish method. What happens now to the gravitational constant? What happens to the mass and density of the Earth and consequently to the mass and density of every celestial body in the solar system? All of them calculated from the results of this experiment! What happens to the mass of our galaxy and even, the mass of the universe?

The Cavendish experiment provided the first experimental proof of Newton's "LAW" of gravity. Most of what we are 'absolutely sure' we know is derived from his results. The professional philosophers can pooh-pooh and tut-tut until Hell freezes over, but until they seriously address the problems associated with this experiment, they will keep playing games with themselves and everyone else around.

I call for square one re-testing! Much of physics beckons ever more loudly. I can hear the most basic experiments calling out to the philosophers of the world, "Test me! Test me again!" Unfortunately the philosophers are as arrogant as the last of the three ancient monkeys of myth. While the individual monkeys are forever enjoined to see no evil, hear no evil, and speak no evil, the "open minded" philosophers seem as arrogant of the last monkey shown on the extreme right. This fourth monkey is deaf, dumb and blind!



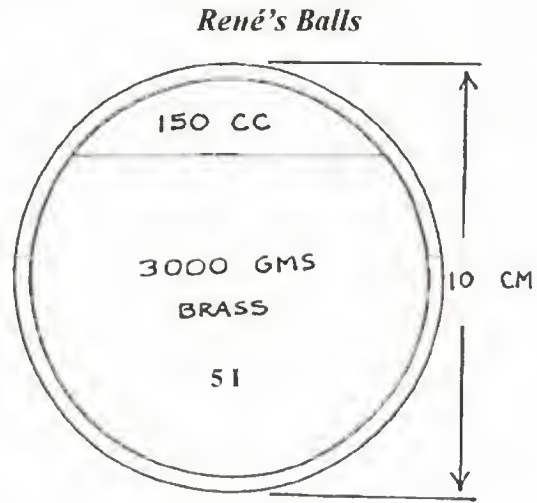
The Cavendish experiment needs replication using modern technology. Some way must also be found to either completely shield the apparatus from electro-static charges or to accurately compensate for them. It could be done by using a Faraday shield but nothing will ever happen until minds open up!

I propose a new test, an observational test, for Newton's gravity. My experiment will measure the time it takes for three separate masses to attract each other. The gravitational force of attraction will accelerate each object toward the other two, and we can determine this acceleration from the time involved before they touch. From that acceleration, we can then calculate the actual forces of attraction and compare them with Newton's formula and Cavendish's gravitational constant.

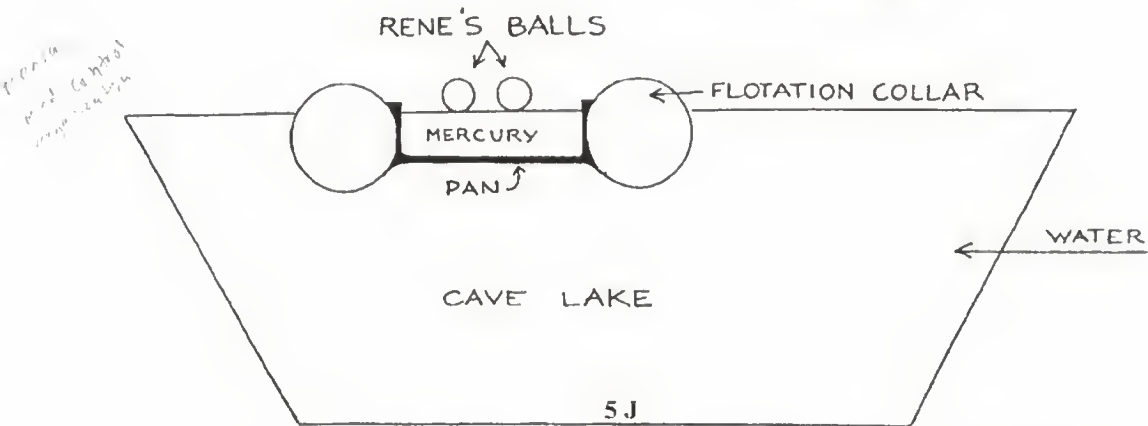
So we obtained three thin wall hollow spheres of brass about 10 centimeters in

the top of about 150 cc's and thereby cause each sphere to float above its equator when placed in mercury. By so arranging the center of gravity we would also stabilize them against wobble.

Suppose we send our spheres out to be precision ground by a process similar to that which creates ball bearings. By adding a bit of weight to the two lightest balls we would then have three balls equal in diameter at 10 cm. and equal in weight at 3200 grams. We chose these materials because they are non magnetic, and won't respond to stray electro-magnetic fields. For the want of a better name let us call these three spheres Rene's Brass Balls.



Floating Pan



Now we must locate a deep cave in the middle of nowhere, far from vibrations caused by traffic, construction and quarrying, and other man-made vibrations. There we create a large pool of water. We fill a plastic pan about 30 centimeters in diameter with about 6 centimeters of mercury. Since this container is quite heavy we must then create a large foam flotation collar around the container. We thus make a heavy, but very stable and vibration-free mercury bath.

We place the pan into the pool and we now have a liquid floating in a liquid, deep in the earth. This should dampen out all extraneous vibrations short of an earth quake. The sketch shows the floating pan.

We now arrange a very precise triangular rack that has an internal separator of plastic to keep the balls about one millimeter apart as they float. When all wave motions have been dampened out and stopped, we turn on our very high speed movie camera to record this new proof of Newton's gravity. We slowly lift out the plastic, thus smoothly freeing

object here is to see how long it takes the gravitational attraction to pull the three balls together.

According to Newton, the theoretical gravitational force of attraction is equal to the gravitational constant times the product of both masses divided by the square of the center to center distances. We find that this theoretical force is 6.685 -E03 dynes. And we can see that the force must greatly increase by each lessening of the distance. However, for simplicity of calculation, we will pretend that it stays the same.

$$\text{Force} = g \times m_1 \times m_2 / d^2$$

$$6.6 \text{ -E08} \times 3200 \times 3200 / 10.1 \times 10.1 = 6.685 \text{ -E03 dynes}$$

To find the theoretical acceleration of a single ball, we now divide the force by the mass. This calculates out to an acceleration of 2.09 -E06 cm per second squared. According to Newton each mass should “gravitate one toward the other” at this rate of acceleration. This means, of course, that each ball actually has only half the distance of the separating space to travel.

$$\text{Force} = m \times a$$

$$a = f / m$$

$$6.685 \text{ -E03} / 3200 = 2.089 \text{ -E06 cm/sec}^2$$

According to our understanding of physics, the time that it takes for this accelerating body to travel one mm. equals the square root of the distance divided by the acceleration. This time is 309 seconds or 5.15 minutes.

$$\text{Time}^2 = 2 \times d / a$$

$$t^2 = 2 \times .1 / 2.089 \text{ -E06} = 9573$$

$$t = 309 \text{ sec or } 5.15 \text{ minutes}$$

Please notice that each of my simplifications here favors the “LAW” of gravity. We used twice the distance, plus a steady force which greatly increased the theoretical time of our great event. The movement should take place much faster, which is the reason for the high speed camera.

If you are tempted to do this experiment, hold your breath only as you release the balls. If you continue to hold it until the balls touch, you are going to be very cold, very blue and very dead! I’m afraid that you would have a very long wait indeed before Rene’s brass balls would clang together! In fact, you would wait an infinite period of time.

When this experiment fails, do not blame the meniscus caused by the mercury’s very high surface tension, because the float line lies below the balls’ equatorial contact points. When it fails, do not blame liquid friction, because friction is always proportional to the force applied. Friction would simply slow down the event by some few seconds, but would not prevent it. (I have personally moved a 600 ton barge over 50 feet by hand hauling on a large diameter rope hawser.) When this experiment fails, the failure must lie in the “LAW” of gravity. If there is no acceleration in some finite period of time, then

If Newton's law needs a small bit of revision, then philosophers, do your thing. Revise! And while you are revising, don't forget to change the value of G (the universal gravitational constant), and consequently the mass of every solar system body including the sun itself. Then change the masses of binary stars, and any other planets we've almost discovered by recent computer enhancement. Throw away those obnoxious Black Holes (good riddance) and their associates Worm Holes and Super strings, and even, remote quasars and neutron stars. And while you're at it, please get rid of all the experts who write whole books professing to know what happened after a few micro-seconds of the Big Bang!

Another problem is in determining if Newton was right when he declared that each particle that is part of a mono-molecular sphere has zero attraction for all others in that sphere. Until this is accomplished, any gravitational constant found, if indeed any exists, will be useless. No, it will be worse than useless for it will allow the philosophers to think up all kinds of weird theories which will then be used to create still others based on the first, all of which simply obfuscate any truths that might happen to be lurking nearby.

By this process truth gets buried under ever higher and deeper piles of ... bullshit! We the little people, can always use a laugh, and what would be better than to spend the next few years "last laughing" at the experts who have spent the last 300 years pontificating at us?

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

ROLL-OVER

Throughout this book I will use the word "Roll-Over" which is a concept that HAB (Hugh Achincloss Brown) proposed in his book "*Catyclisms of the Earth*". In fact, my research and discoveries over the past 25 years have all been prompted by, or directed toward proving or disproving HAB's "Roll-Over" theory.

I'm an inventor, and this led me to study many of the various engineering disciplines. This, in turn, led to a great interest in things scientific. I did not set out to discover anything. My path was chosen for me about 25 years ago when I read HAB's book.

During my first reading, on three separate occasions, I threw his book against the wall. His theories violated my (EBS) Emotional Belief System. He insisted on telling me things that I knew could not be true.

One of his beliefs was that erosion is not the main reason that we must dig down, approximately 3 feet per thousand years to uncover artifacts of the present epoch. He believes that the Earth constantly accretes matter by a natural reversal of Einstein's matter to energy process. In HAB's process the plants use the sunlight and photosynthesis to create matter. Bang! The book hit the wall.

Later, I remembered a hunting trip when I had to dismantle a stone wall to get at and kill a wounded squirrel who had scrambled into it. The bottom rocks of the wall were over a foot below the surfaces of the adjacent pasture. Now, farmers don't dig footing ditches when they build a field-separation stone wall. On another trip I found the site of an old cabin whose dirt floor was lower than the surface of the surrounding field. I pictured a rainy day and laughed at the builder because his floor would be a puddle until I figured out that the roof had protected the inside for years from falling leaves and wind blown dust while the outside accreted matter. This allowed me to see that it was only my preconceptions that had been insulted — not my logic.

His theories intrigued me because they provided a better explanation for many anomalies of geology and paleontology than did the official scientific party line. To provide relief from my world of heavy construction labor, I started out to prove him wrong. After all these years, although I have proved him wrong in some minor points, his main ideas stand and his book has become my bible. It also directly led to most of my discoveries, and to the scientific skeptic that writes these words today.

HAB did not believe in Ice Ages. Instead, he argued that the Earth periodically "Rolls-Over" every 3500 to 7500 years, physically changing the surface location of the poles of rotation and thereby defining a new equator. When this happens the new poles maintain approximately the same axial tilt as the old because the solar system is driven and controlled by the immense electrical generation of the Sun. Buried in the Faraday diaries of which I shall speak of later are the results of an experiment that demonstrated rotation, revolution and tilt of bodies by electricity.

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arctic period. This epoch began after the last Roll-Over, about 5500 BC. During the previous epoch the major ice cap was centered in the depression we now call the Sudan Basin. That epoch lasted for 4500 years, from 10,000 BC to 5500 BC.

Think about it, if the pyramids and the sphinx are a bit older than we think, they were once buried under the Sudan Ice Cap. The epoch before that formed the Hudson Bay Basin. That epoch lasted for 7000 years from 17,000 BC to 10,000 BC. And the one before that centered in the Caspian Sea Basin and lasted only 5,000 years.

To visualize a Roll-Over, one must first picture a perfectly spherical, balanced and homogenous Earth that is floating in space, where there is no up nor down. Then one must add a small surface mass near to the poles, and then begin to rotate the world. At this time, this eccentric polar mass would twist around and migrate to the new equator.

Our professional uniformitarian philosophers ardently believe in a "natural" uniformitarian universe, a universe that admits no catastrophe! A "Roll-Over" would be the ultimate catastrophe, and they blithely ignore any evidence pointing in that direction. They also believe that the present poles of rotation have remained the same since the Earth formed. However, they do believe in Ice Ages, which are periods of world wide glaciation, that at times have sent ice clear down to the equator. And if that isn't catastrophic, no matter the periods involved, I guess I don't understand the meaning of the word.

To our current philosophers, the Ice Ages alternate with periods of great heat during which the polar regions support tropical plants and animals. They believe this because our planet is littered with physical evidence of so-called eras of glaciation right down to the equator. They have chosen to ignore the simple fact that fossils can only be the result of a natural catastrophe, which temporarily suspends the normal decay cycle the same way that the catastrophe of martial law suspends civil rights.

A European grammar school teacher named Bernardi invented the Ice Age theory. In 1836 Louis Agassiz, a scoffer, visited a Swiss glacier in order to gather ammunition with which to bury Bernardi.

Agassiz saw for himself the moraines (mounds of pebbles and rocks), the striated, polished rocks and the erratic boulders. The moraines were nice and the rocks were pretty. But it was the erratic boulders, some left on mountain tops, some in valleys, and most of them hundreds of miles from their points of origins, that turned Agassiz, the scoffer, into the most forceful proponent of the theory.

At first, it was believed that there had been only one Ice Age which had somehow cascaded down from the North Pole, as far south as New York City before it retreated. But as the decades passed, similar evidence poured in from all over the world, including the recently torrid equatorial regions of Brazil and Africa. Instead of these anomalous observations sounding the death knell of the Ice Age theory, the Uniformitarians invented larger and better ice ages and extended them further and further back in time. According to the philosophers, the Earth's average or mean temperature has varied greatly over the

moths and other large herbivores; warm enough to mature semi-tropical fruit, warm enough to grow coral in the surrounding sea and warm enough for those shores and rivers to harbor crocodiles, then we must be talking of an average polar temperature of around 70 degrees. If the North Pole is warm we must assume that the southern pole must also be warm. If both northern and southern seas warm up 40 degrees, wouldn't the equatorial seas approach boiling and become too hot to sustain life? ¹

But even if I could accept this notion, my mind boggles at how enough foliage was able to grow to keep the great leaf and grass gulpers gassed up during the six months of winter darkness. Has anybody ever found a grass that could grow in the dark? Or tree leaves? Elephants are primarily leaf eaters and need well over a hundred pounds of fodder a day. They need forests which cannot grow, no matter the temperature, where the Sun is always below 21 degrees in elevation. Each tree's shadow would starve any close neighbors.

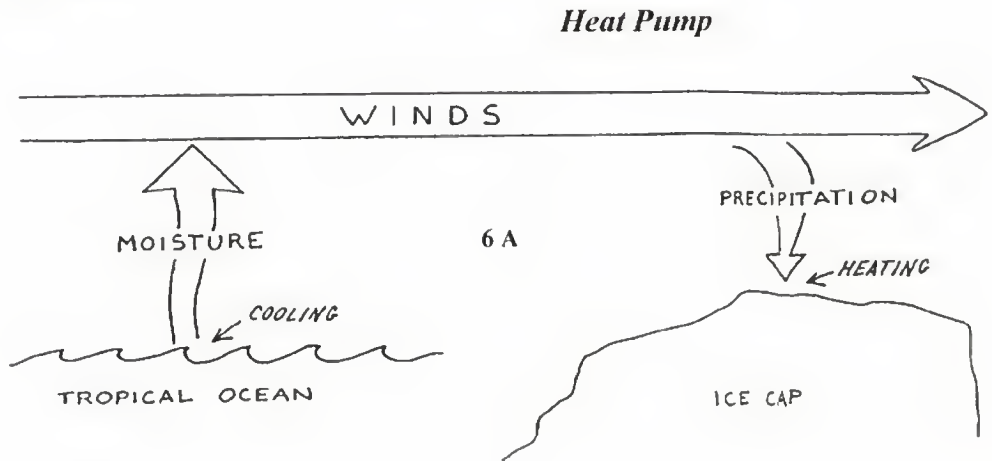
Then eons pass and the poles gradually cool. The tropical animals slowly retreat toward the tropics. Some other species stay behind and evolve into arctic animals. And every once in a while the glaciation extends clear to the equator and the tropical animals are lifted off the planet by either God or animal loving spacemen who supply space for them and care for them in immense zoos until conditions improve back on Earth. From an ice age to a warm era we are looking at a mean temperature shift of well over one hundred degrees at both poles and equator.

Which is ridiculous! The polar regions of every planet, whose poles are close to 90 degrees to the plane of orbit, are much colder than that planet's equator, provided that planet is not still red hot. This is because the incoming sunlight at the poles has a great angle of incidence. Here on Earth, even if our axis were not inclined over 22 degrees to the equatorial plane, the polar regions would still be cold. Look at how the local temperature drops every night. The ratio of equatorial heat to polar cold for our planet is fixed depending on various factors such as internal heat, atmosphere, extent of water, inclination of axis, and the output of the Sun.

For over 150 years, mechanisms that could create Ice Ages have been postulated, one after the other. Each in turn are hailed at first, then later discarded for another newer one until, Phoenix-like, the old ones again become resurrected. The dust blanket theory is being revived today by Sagan in his nuclear winter theory. With this theory something (Meteor — Volcano — H-bomb) stirs up enough dust to shroud the planet. This dust has magical property in that it doesn't settle, resulting in ... a severe and long term drop in the temperature. I grant a temperature drop because some of it stays suspended for a few years, but the major effects do wear off as the dust settles. To suppose dust not to eventually settle, no matter the particulate size, is to believe in magic.

The rest of the theories are all based upon some mechanism that alternately raises and lowers the planetary temperature by altering the sun's output, or by varying the Earth's orbit or even the inclination. Some part of each theory always reduces planetary temperatures, because each philosophical genius realizes that cold is vital to the formation of ice. However, what they never take into account is that cold is only one half of the process. The other half is heat. Just like a refrigerator needs a hot compressor, an Ice

evaporation of ice into vapor (sublimation). To create cold, your kitchen refrigerator is totally dependent on an outside energy source (usually electric) but in the past a flame has also been used to provide the energy for removing (pumping) the heat from the inside box to the “outside” heat exchanger. To build a glacier, water must be evaporated from a warm sea, transported as clouds to the arctic areas, or high elevations, and then be precipitated out as snow. Then that cold dry air must return to the warm sea, to start the cycle again.



However, the evaporation rate of any ocean is completely dependent upon four things; the air temperature, plus the humidity of that air, the temperature of the body of water, and the surface area involved. As each drop of water vaporizes from the ocean, a large quantity of heat (heat of vaporization) stays locked-up in the vapor itself, and this latent heat is incidental to the temperature of the air. It is transportation of this vapor that removes heat and chills the ocean. When such humid air is cooled over a glacier, or at the high elevations, precipitation occurs. Then the heat of vaporization is released. Thus the transfer of heat from an ocean reduces its ability to create vapor, and the transfer of heat to a glacier reduces its ability to create ice. This is one of the limits to the growth of a world wide Ice Age.

As glaciation extends southward, another check on growth occurs. As the volume of the glaciers increases, the volume of the seas must decrease. This decreases the surface area, which reduces the effective rate of evaporation. These two limits tend to severely limit the heat pumps ability to glaciare on a world wide basis. Since both hemispheres must glaciare simultaneously, the heat pump necessary to glaciare to the 40th parallel, let alone drive them down to the equator, would have to be magical.

Since I was a kid I have been told that a temperature drop of only two degrees would precipitate the next ice age. Bullshit! All this would do is decrease the world's already shaky food supply and build-up a bit more permafrost in the northern regions. A large enough temperature drop might even freeze all the oceans, but no amount of cold can produce worldwide glaciation. When someone parrots worldwide glaciation to me, I feel just like that irate old lady does in the hamburger commercial when she screams

Siberia, yet there are no Siberian Glaciers because Siberia is too far distant from an oceanic heat pump.

During the next Roll-Over, already overdue since the epochs have seemed to average less than 5,000 years, I believe the new equator will be the great circle that passes through the center of the ice mass in Greenland and the center of the ice mass in Antarctica. This should place one of the new poles at 5 N. Latitude and 60 E. Longitude and the other at 5 S. Latitude and 60 W. Longitude. For the next few paragraphs my descriptions (north, south, east and west) of the following areas are as shown on a current map. The first polar region will encompass Somalia, eastern Ethiopia, eastern Saudi Arabia, western India, Ceylon, and northern Madagascar. The second polar region will be a water pole about 900 miles west of the Galapagos Islands and contain Clipperton Island, Easter Island, and the Marquesas.

The temperate zone from the first pole would run through all of eastern Africa, Turkey, Iraq, Iran, southern Russia, most of India, Tibet, Burma, Malaysia, Sumatra and Madagascar. The temperate zone from the second pole would include Hawaii, the south western United States, Mexico, Central America, Ecuador, Peru and the Cook Islands. The tropical zones should hold eastern Australia, New Zealand, Antarctica, Cape Verde Islands, eastern Brazil, western Africa, Spain, Portugal, Ireland, Great Britain, Iceland, Greenland eastern Siberia, Alaska, the Marshall Islands, and the Gilbert Islands. Strictly by chance New York City will remain at the same approximate latitude.

The destruction to land surfaces, mountain ranges, river beds and life forms would be incredible, because the rotational velocity at the equator is 15 degrees per hour, or 900 knots (per hour). The velocity of those parts of the Earth's surface moving to new poles and a new equator would equal this speed, as land surfaces move under adjacent oceans. The inertia of the oceans will force them to maintain both velocity and direction, will result in indescribable tidal waves. Even the atmosphere would tend to continue on its course, creating continental-size hurricanes, carrying tornadoes and devastating winds to those sections not already drowned. The Van Allen shield will also collapse allowing great radiation to bathe the surface.

Around 1200 AD, the Greenland ice cap began to expand and the northern seas around it became ice-choked for much of the year. This had to, and did have a corresponding effect on the world's climate. At about the turn of the millennium there was a Norse colony located on the northern end of Greenland. One year an extra cold winter froze the sea and it has never thawed again. Howarth has this to say, *"Now, in the north of Greenland the glaciers seem undoubtedly to have been growing and extending over districts where formerly a more temperate climate prevailed, notably in the days of the Norwegian settlement."* ²

In Britain, where it had been balmy, fireplaces were installed in castles. The Swiss glaciers crept over some Roman roads, a lot of farm land and a very productive silver mine. None of the above has yet been given back by the glaciers. One lost Norse colony of Leifsbudir, Vinland was actually located in Narragansett Bay, Rhode Island between 986 and 1035 AD. There are twenty-nine points of agreement in placement with the

Early navigators kept looking for the northwest passage with a persistence that bordered on manic. It was as if they knew it existed, but were baffled that they could no longer find it. This passage does exist — our atomic subs use it frequently as a fast passage between the Atlantic and the Pacific. The only problem is that it is now covered with ice. However, in a world with a bit more warmth in the high latitudes, summer passage might have been possible, even to the ships of old. A slightly warmer planet might also explain how Hannibal was able to move his small African forest elephants over the Alps.

In the mid 1500s the Spanish had working orange groves in Charleston, South Carolina. Try to duplicate that feat today. Two centuries later, the new center of American orange groves had dropped into central Georgia. Then another freeze, just before the turn of the century, drove it further south to Fernandino Beach, Florida. Then another freeze sent it down to Saint Augustine and yet another to Orlando. The freeze of 1989 destroyed many groves in the Orlando area and damaged even those on the edges of the Everglades.

Slightly to the northwest of Orlando, near the Florida Gulf coast, are two counties named Orange and Citrus. But you'd be hard pressed to find a single orange tree, let alone any groves there. Since it's still fairly open country, I know that condos didn't run them out. The cold has driven the oranges southward over 300 miles in 450 years. That's a mile every 18 months. Florida orange growers have no place left to retreat to now. They are pinned on the borders of the Everglades, and oranges don't grow in swamps.

Forty year old memories are treacherous things at best, but on a trip to the Daytona motorcycle races when I was 17, I remember seeing palm trees before we hit the South Carolina border. I also remember talking with an old man in the middle of nowhere, North Carolina, who had hunted "gator" as a boy. And there was Spanish Moss all the way through Georgia. A few years back, I sent off letters to the various historical societies of Georgia and the Carolinas, asking about the northern limits of specific species in colonial times. I asked Georgia about Spanish Moss. I asked South Carolina about Spanish Moss, palm trees and alligators. North Carolina about alligators and palm trees. Georgia never answered, and South Carolina wanted 6 dollars to do a genealogical study of either gators or palm trees, I'm not quite sure which. However, Charleston, SC was renowned for its Spanish Moss just before the Civil War.

Jerry L. Cross of the North Carolina Historical Society placed alligators as far north as Albemarle Sound in colonial times. The north end of Albemarle Sound is about 25 miles from Virginia. I then wrote to Virginia on a hunch, and learned that gators had once lived in The Great Dismal Swamp. This would mean that the gator has been driven southward well over 150 miles since Colonial Times. Of course, this retreat might easily be blamed on man, who has been known to exterminate a species or two. Or three or more!

Gators used to be seen as far north as Saint Louis in the early 1800s. Today Spanish Moss is scarce north of the Georgia line and the palms disappear about the middle of South Carolina. Also, the manatees, who become comatose if the water temperature goes under 60 degrees, are no longer found in the Gulf area around Pensacola, which is much less developed than south Florida. So much for Carl Sagan's hothouse effect!

Antarctica was discovered in 1818, and shortly thereafter sections of the coast were mapped by whaling ships. Those old maps show coastal details now buried under hundreds of feet of ice. The rate of accretion seems to be more than a foot per year. Tall radio towers left at Little America by Richard Byrd in 1929 are now halfway buried in the ice.

Recently a large supply plane was recovered from under 30 feet of ice in Antarctica after being parked there for only 15 years. This would indicate a growth rate of two feet a year and substantiate the coastal accumulation of ice since 1818. If you believe that ice can float boulders then it can surely float an airplane since the density of an airplane is much less than that of rock.

The Vatican has records dating back 1000 years that show that coastal areas of Greenland were once green, hence the name. None of this, contrary to the expert's great expectations, could have happened without growth of the great ice caps.

The Greenland cap covered a squadron of planes that were abandoned during WW2. A salvage team is searching for another flight of planes lost in 1942. ⁴ They are buried 260 feet deep in the ice. A previous squadron has been rescued from under 40 feet of ice. Is the cap growing? Are the planes sinking? If they are, how can glaciers carry huge boulders up mountain sides?

Most icebergs are calved toward the end of winter. If ice caps were actually decreasing, glaciers that reach the ocean would melt away — producing water instead of icebergs. Thus each winter, on average, there would be fewer and smaller icebergs, and the summer beaches of Antarctica would be expanding. Neither of these conditions have been observed, and the evidence points to polar caps that are expanding, not shrinking, as the “Hot House Effect” demands. It is politically correct to speak of “Global Warming” caused by mankind's various exhalations but it is too soon to tell if the temperature rise will overcome the already existing tendency toward a cooler climate.

But let's examine more closely the objects that are classified as the proofs of an ice age. They are: sand and gravel moraines, striated rocks, polished rock surfaces, and (especially) erratic boulders. With the single exception of erratic boulders which are very impressive, impressive enough to act as keystones for the Ice Age Theory, rivers and creeks do the same thing with the sand and gravel in their beds and on their banks. The Ice Agers believe that the same ice that grinds a deep lake basin out of granite gently molds mounds of sand and gravel and passes peacefully over low mountain ranges of soft material only to grind out another deep lake basin in granite.

According to Ice Age proponents erratic boulders, some of incredible size, are the ultimate proof that there are Ice Ages. In fact, wherever they are found becomes a new area visited by yet another Ice Age. Here is what Mr. Cox has to tell us about erratic boulders:

“(1) In Maine, erratics on Mount Katadin have been transported at least 18 km and uplifted 1000 meters.

(2) Erratics in the Adirondack Mountains, New York, have been transported at least 100

(4) On Killington Peak, Green Mountains, Vermont, rocks have been transported possibly 80 km and lifted 900 meters, apparently, by the ice.”⁵

(5) They have also been moved from the Laurentian Plateau (with an average altitude of 1600 feet) west and southwest to within a few miles of the Rocky Mountains onto a plateau whose altitude is 4200 feet. This is an average distance of over 700 miles.⁶

If you ever visit New Jersey, take a look at the monster boulder (middle-sized erratic) that lives at the corner of Rock Road and Doremus Ave in Glen Rock. It, and all its millions of cousins all over the planet, are supposed to have been carried by the ice and deposited where they are found. Some wound up at much higher elevations than their original location. The only pertinent question is, can ice actually carry rock? I don't mean drag or push, I mean lift up and carry!

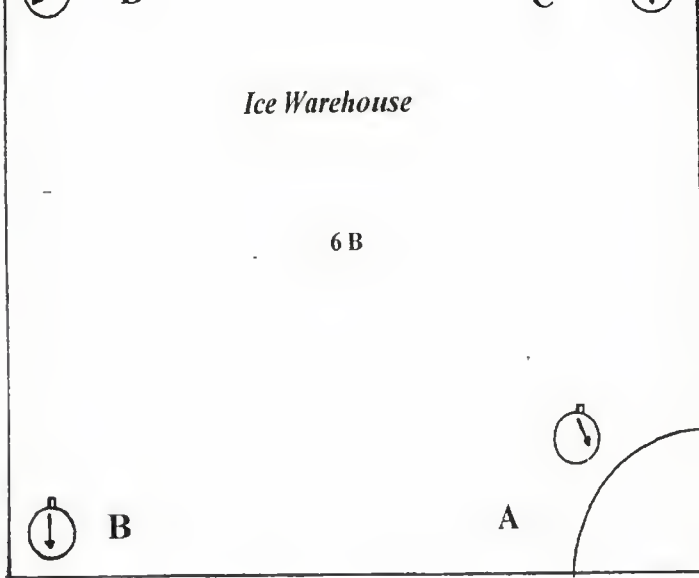
The problem is that ice that can do this sort of a thing is no longer found on the planet. We have trillions of tons of regular ice, but this special stuff hasn't been seen since the end of the last Ice Age! This special ice had a compressive strength much stronger than the current ice. Lab tests show that our modern ice crumbles if we ask it to push a lousy 7 miles of itself along a super-slick, friction-free level path. Our current glaciers and ice fields come to a halt as soon as they reach level ground, let alone a hill. The only way we can get them to climb a hill is by pouring a lot of ice water on their top.

It is claimed that water alone created New Jersey's shore line. However, the experts assume that Long Island is a terminal moraine of the last Ice Age. I find it difficult to distinguish between the two. Every stream and river bed shows polished rocks, and water has been known to heave a boulder or two. In England, a lighthouse has to be rebuilt every 20 years; because the North Sea periodically bombards it with 2 ton boulders. A broken dam in California swept chunks of concrete, weighing up to 10,000 tons, miles downstream.

In 1958 the glacier in Lituyo Bay, Alaska, calved an ice berg which drove a giant wave, 1720 feet high (over a third of a mile) onto the far shore, sweeping away a forest. And this wave was a tinkr-toy compared to the size of waves necessary to sweep erratic boulders to the tops of mountains. This would require humongous waves generated by an entire ocean being torn from its basin. This, of course, is — impossible!! At least, in a uniformitarian universe! These are not killer waves nor tsunamis, these are humongus waves generated when a “Roll-Over” forces the land to twist in front of an ocean moving at the average Earth's rotational speed of 1000 mph.

Suppose we rented a huge, empty, rectangular frozen food warehouse for a rather simple experiment. We first create a holding tank in one corner marked point A and then fill it with 10 tons of water which we turn to ice. Then we install a number of recording thermometers, about four feet off the floor, all over the building. Now we turn off the refrigeration unit.

Where do you think we would find the warmest temperature? Wouldn't it be at point D, the point furthest from the ice pile? Assume this temperature was 55 degrees. Now we turn the refrigerating unit back on and bring add another 10 tons of ice in corner A.



Wouldn't the same place still be the coldest? And wouldn't each of the other thermometers record it cooler than before? I submit that this is precisely what is happening and has been happening for the past 1000 years and probably since the last "Roll-Over." If there is a "Hot House Effect", that is causing "Global Warming", it has not stopped this natural occurrence but only slowed it down.

Fifty years ago, hills in Alaska were hydraulically mined for gold by jets of water powerful enough to sluice entire hills onto huge riffle boards. Sand, gravel, rocks, plant scraps, and the organic muck was washed away leaving the much denser gold lying in the riffles. The muck — black, viscous and very smelly— was comprised of strange materials. For in it could be found fur, fin, and feather mixed with teeth, bone, scale, hide, hoof and hair from both extant and extinct creatures of land, sea and lake. But even stranger, these scraps had been torn from creatures with very diverse habitats ranging from the Tropic to the Polar. And, believe it or not, the scraps were not fossilized. Similar finds, usually in caves or grottoes, have been reported all over the world.⁷ A bone cave was found outside Cumberland, Maryland, in 1912. They found bones of extant and extinct animals, from boreal to tropical, completely fractured, scattered and mixed.⁸

I submit that these fish, animals and plants were swept up by seas cascading over vast land surfaces, and then deposited in nooks and crannies as the waters drained off. I admit that the thought of a miles-high wave sweeping a continent to the bedrock, crushing and grinding everything as it scours that continent is ... mind boggling. However, to paraphrase a famous fictional detective, "*Watson, after the impossible is eliminated then what ever is left, no matter how improbable, must be the truth!*"

Before you laugh at HAB's theory as I once did, turn a world globe up-side-down and take a long and serious look at Antarctica. Notice the eccentricity of the continental area in relation to the pole (center of rotation). There are over 5,000,000 square miles of ice,

Smithsonian museum in Washington has an 8 foot diameter topological globe, and liberally scattered over it are numerous bowl-like depressions with ancient river beds that radiate outward. If Antarctica were to "Roll-Over" to the equator, would not the tremendous melt off gouge radiating river beds? I believe that this is a natural process that has been repeated over and over again down through the eons. As I said before, the polar regions of each epoch are the Ice Ages. We are now living in the Antarctic Ice Age.

If the Antarctic and Greenland ice caps are growing, then it is only a matter of time before the forces generated by both eccentric ice masses overcome the Rene' Bearings that hold us stable. The only question left is the determination as to how fast the caps are growing and how strong are the bearings. Popular philosophical opinion blames the oceans' rise on melting caps. There are at least four possible explanations for the world wide increase in sea levels that has been noted recently.

The first is that the land masses are sinking. I reject this because I cannot believe that our core of "liquid" iron is cooling at so high a rate. The second is that the water may be coming from the massive burning of fossil fuels that has characterized the last 100 years of our civilization. Believe it or not, anytime we burn a hydro-carbon fuel, vast quantities of water vapor are generated. Some of the increase is undoubtedly due to this but I seriously doubt that it would directly account for more than an inch. The third is that the planet passed through a huge cloud of icy debris and this one time occurrence might account for another inch or two. The last is the most probable and involves the warming of the oceans by one means or another. This thermal expansion could easily account for the observed increase in sea level. This does not mean that the polar caps are receding. More heat would tend to pump more precipitation at the polar caps and actually cause them to increase unless the temperature rise was excessive.

A periodic "Roll-Over" would not only account for the general mass extinctions of animals down through the ages, but also the finding of mass fossils and even impressions of rain drops found frozen in rocks. Think about it, all fossils result when the normal processes of decay and erosion are somehow suspended. This can only happen during an incredible global catastrophe. Coal is not created from trees that have miraculously escaped the natural processes of decay. It is formed by cataclysm where whole forests are buried and crushed under water and earth.

HAB believed that the average period between each "Roll-over" is about 3500 years. He claimed that 7500 years have elapsed since our last one and that we are long overdue for the next. If he is right then periodic planetary destruction has many times destroyed man's attempts at civilization. If he is right, our current civilization hangs by a Damocletian thread. Our philosophers believe wholeheartedly in the Ice Age theory. They believe the last Ice Age ended about 10,000 years ago and that there are hundreds of thousands of years between Ice Ages. However, they offer no explanations for the maps of Piri Reis or those of Ortoeus Finneus. A Finneus map is shown in Chapter 17.

Most geophysical theories have little importance to every day living. But the HAB theories are vital as they deal with civilization itself. A polar shift would be a planetary disaster because of the tremendous surface destruction. Even the atmosphere would be

whole planet struggled to regain equilibrium. Those who survived the volcano would destroy the habitats of man, beast and plant, including any civilization that man has managed to build since the last "Roll-Over."

The few people who live through this catastrophe will shed civilization's veneer and regress to a primitive, sheer survival, mode of existence not because they forgot how their civilization was put together, but because they lost the tools and the manpower. Once again they will take refuge in caves which make great shelters when your world has literally turned up-side-down. However, since caves are cold and damp even in the summer, they make lousy permanent homes. They are also limited in number, and if every cave in the world were inhabited, the total world population would be small indeed. Just about as many as would survive a "Roll-over." When we find traces of habitation by these "Cavemen", what we are finding are the life styles of the few survivors who trembled on the edge of extinction.

As the Earth "heals", any sane "Caveman" will leave for the valleys and, I'll bet, never cast a remorseful glance over their shoulders. It will be a few thousand years before the population will increase to the point where civilization again becomes possible. Naturally, after a "Roll-Over", the new ice caps begin to build at the poles as the old ones are rapidly melting at the equator. This theory is the only one that accounts for the anomalous artifacts that have been found embedded in coal seams and in the workings of deep mines. HAB's theory also accounts for the tropical animals, especially mammoths, found quick-frozen on the shores of the Arctic sea.

The Roll-Over, or a Velikovskian catastrophe, may have been more recent than anyone suspects. The remains of a decaying giant sloth were found under a ledge, in South America around the turn of the century. The South American Indians call this creature the Jemisch and still fear it because its skin is armored. Don Francisco Moreno brought both the bones and the decaying skin of a specimen of this "long extinct" animal to England. Our modern experts claim that the skin was preserved in an ice-cold cave, but if this is true, then why do the Indians point to the huge tracks of an unknown carnivore and claim they are made by a Jemisch? ⁹

Shortly before Daniel Boone opened up the Kentucky region, a captured white woman was taken to work at gathering salt in a place the Indians called Big Bone Lick. She described a vast boneyard of tusks, ribs and giant skulls that were protruding from the ground in various states of decay. Today the town of Big Bone, Kentucky is very near the place she described in her diary. ¹⁰

The plains Indians told the early explorers that their ancestors had hunted elephant-type creatures who leaned against trees when they slept, just like modern elephants do. ¹¹ Just before our Civil War, a stone statute was found in Copan, Mexico upon which was carved the heads of two elephants. ¹² In 1864, two men found a pendant in some peat near the Holly Oak railroad station in northern Delaware. It was a picture of a woolly mammoth carved upon a fossilized whelk shell. ¹³

Around 1872, a farmer in Louisa County, Iowa, found a pipe in his fields. It was in the shape of a bird's head and was carved from a piece of fine sandstone. ¹⁴ About the

ina. On one side was chiseled the picture of a spear and arrow. Wounded elephant fighting an Indian. ¹⁵

The town of Paredon lies 500 miles north of Mexico City. Near it and lying under 60 feet of dirt, tangled bones and smashed stone structures is an ancient city that once had a population of 50,000. The bones of people, domestic animals and elephants are intermingled. These elephants were domesticated because many of the tusks have rings of silver on them. ¹⁶ The only question left to answer here is which ocean crashed over their city.

Moab is situated in eastern Utah next to the Colorado border. In 1924, a pictograph of a mastodon, chiseled in the solid rock, was found in the nearby Colorado Canyon. ¹⁷ A little over 20 years ago, in Flora Vista, New Mexico, a small stone slab was found near some Indian ruins thought to date back to 800 years. Chiseled onto it are 55 signs and pictures, two of which are of elephants. ¹⁸ In 1928, the unfossilized skull of a Camelops with dried flesh clinging to it, was found in Utah. This animal is supposed to have been extinct for a half a million years, and the bone should be stone. It was studied at the University of Chicago and pronounced to be of much more recent vintage. ¹⁹ The extinction of all these animals is currently linked to the end of the last ice age. This makes no sense. Here is a case where tropical animals survived 100,000 years of Ice Age and then, when it was over, allegedly curled up and died!

Today we are rapidly heading toward a one world state. Every major city on the planet is cosmopolitan, and even the most homogenous of them has enclaves of other races living there. Suppose a world wide cataclysm struck and shattered our civilization while reducing the world's population to 1 % of its previous teeming numbers. Would not the survivors tend to become tribal and exclude those of other races? All things being equal, this would ultimately result in a situation where the main tribes in an area would be of the previous predominant race, but interposed would be small tribes of other races. Would you be surprised if I told you that prior to our modern era, just such a tribal situation as described above existed on every continent?

In the Atlas Mountains of North Africa were found a tribe of blue eyed blond and fair whites as late as the early 1800s. ²⁰ The Mandan Indians of North America who lived on the upper reaches of the Missouri River were found to be lighter skinned and of different appearance from the surrounding Indian tribes. They also had many members whose eyes were gray or blue and whose hair was fair. ²¹ At the turn of the century there were 13 tribes of white Eskimos living around Victoria Island in northern Canada. They were not the result of cross-breeding, because ten of the tribes thought the only white people in the world were in their own tribes. ²² Throughout the entire Pacific, the Polynesians have traditions that claim that there were many white tribes living on the various islands before the influx of white men that began in the 1800s. ²³ A tribe of 50,000 light skinned natives called Tarifuroro were living on a limestone plateau in central New Guinea in the early 1930s. ²⁴ The Koreans in northern Asia have been found by DNA analysis, to be composed of three separate racial types, Chinese, Siberian and White. ²⁵

In the Atlantic side of Colombia, South America, there were villages of whites that had

Indians of eastern America. ²⁷ Just before the turn of the century, in the Congo-Zambesi regions of central Africa, about 15 % of the families, no matter the tribe, were found to be yellow skinned. There were also copper skinned peoples scattered about. ²⁸ I maintain that these anomalous peoples are further evidence of the Earth's periodic "Roll-Overs". I also believe that coal and oil are also products of these periodic cataclysms. There is no doubt that coal is derived from organic materials because we frequently see leaves and wood grains patterned in the coal. The only question left is the method by which the normal processes of decay are bypassed in order to produce the coal. The only logical answer is — Cataclysm!

When a whole ocean roars over most of a continent, the surface is scoured clean of all vegetation, which is then transported to and dropped off in natural bowls and depressions while the water drains away. The deposits may be hundreds of feet deep and compress to the degree that fossilization takes place to produce the coal beds we mine today. However, the creation of oil is alternately believed to be organic and inorganic. The organic profile fits better, but the petroleum experts lack a source sufficient to produce the vast quantities that are found. Picture that same rampaging ocean also dumping immense quantities of fish into other depressions just like it did the trees. The fossilization process would then create the beds we use for oil. This would explain the different Carbon 13 readings they find and the fact that salt domes and sedimentary sands and shales are usually found in conjunction with oil fields.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

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Many of our scientific "Laws" have associated observational anomalies that tell us (should we care to listen) that this "Law" may well be only the best "Theory" currently available. For over twenty years gravitational anomalies have gravitated to me. Some I collected, but most collected me! As a scientific skeptic, it is anomalies to the various scientific Laws that catch my interest — not the examples that show conformity. Some of them caused me to concentrate on Newton's "Law" of Gravity. Professional philosophers, on the other hand, tend to either ignore anomalies, or casually sweep them aside while expounding more simplistic explanations.

Throughout the history of science, each generation of experts have been in basic harmonious agreement with each other. They will cat and dog each other over one decimal place, but usually manage to avoid serious confrontation. Their basic assumptions are those which form a consensus of opinion and effectively set the parameters of that generation's science. Teaching, research, discussion and even evidence are bounded by these informal parameters. Any thought or research which deviates from this consensus, threatens their Emotional Belief Systems and induces rage and invective from the "open minded" priests and laymen of this modern religion we call science.

Here is a story that I received second-hand from a student of MIT, one of the more prestigious technical school in the world. A few years ago one of their non-technical and non-tenured professors decided to investigate cold fusion. He thought that the "experts" had too hastily given it a bad rap. Using his own money for apparatus and supplies, his own basement for a laboratory, he began to experiment in his own spare time. All would have been well if his results were negative. However, he let it be known that he had results which corroborated some of the original investigators' claims. When the term ended, despite a very favorable evaluation by all his students, the school did not renew his contract.

Later you will read of other recent examples of "closed minded" men of education and science, examples in which I will name the schools because I have first hand knowledge. If this destroys the myth about the "open minded" priests of the modern religion of science, so be it!

Individually each gravitational anomaly is fairly harmless, but taken as a group, they constitute a plague on Newton's house of Gravity. We are told that the Moon's orbit is the result of gravitational attraction of Earth, Moon and Sun, each for the other, which counter-balances the Moon's inertia. We are told that all matter regardless of density or mass accelerates at the same rate, that spring scales are not to be used for scientific work, and that the tides are caused by the attractive pull of the Moon and Sun on our oceans. We have been taught this, we believe these things to be true and yet ...

During the last 20 years, this scientific skeptic has become ever more dissatisfied with our concept of gravity, which was postulated late in the 1600s when little was known about electro-magnetic forces. A scientific "Law" is never defeated by the simple swirl

anomalies. One magic day, major cracks appear, and some new genius proposes a new theory. But normally the old guard, consisting of the best rote learners of the era, fight tooth and nail defending the old theories. However, they die off, leaving the field to the young philosophers, who can adjust to the new theory. They will one day, in turn, fight some other new theory to the death. The problem is that as a theory ages it gains tenure, it gathers the respect of age, and is automatically transformed into another irrefutable scientific "Law".

Anomaly # 1: Relative attraction

My mind is so obstinately skeptical that the tides, which are used by the philosophers to verify the "Law" of gravity, are seen by me as anomalous to that very "LAW". By tides, I mean the daily periodic variation in the surface level of the oceans, bays, gulfs, inlets, and estuary regions of tidal rivers that are independent of wind and barometric changes.

Since ancient times our northern European ancestors have known that the passage of the Moon was somehow related to the tides. I specifically use Europe because, as you will soon find out, people in other parts of the world either had no chance to observe the tides, or lived where the tides followed a solar cycle.

Newton saw the chance to explain both the tides he was familiar with and the necessity of making them relate to the theory. Although he "proved" to the satisfaction of northern European philosophers that tides are caused by the Moon's attractive gravity, there are observable tides that do not directly conform to his theory.

Even in Europe, the moon being at its zenith does not match the apex of the tides. When a lab experiment shows results that are anomalous to the current popular theory, the results can be easily swept under a rug. But when you have a natural phenomenon that is daily observable by millions of people, then either the theory must be bent to conform to the facts, or the facts must be bent to conform to the theory. I believe, in this instance, that the facts have been bent.

The "*American Practical Navigator*" hereafter called the APN is the bible of us salty sea-going types, and it has this to say about the tides in general, "*It is often said of science that the ability to predict a natural event is indicative of understanding. Since tides are the most accurately predictable oceanographic phenomena, one could easily assume that physical oceanographers truly understand them. Unfortunately, this is not true; significant gaps remain.*"¹

In explaining the tides, the text books list the ratio of the Moon's attraction to the Sun on our oceans as 11/5 or 2.2 to 1. Over the years however, whenever I actually performed the calculations I arrived at a slightly different number.

	SUN	MOON
Mass (kg)	1.991 E30	7.354 E22

$$\text{Sun force} = 1.991 \text{ E}30 / (1.495 \text{ E}08)^2 = 8.908 \text{ E}13$$

$$\text{Moon force} = 7.353 \text{ E}22 / (3.844 \text{ E}05)^2 = 4.976 \text{ E}11$$

$$\text{Relative force} = \text{Sun force} / \text{Moon force} = 8.908 \text{ E}13 / 4.976 \text{ E}11 = 179$$

These numbers indicate that the relative attraction of the Sun to the Moon is 179 to 1. It says that the Sun pulls 179 times harder than the Moon! No matter the time of month or the time of year the Sun always pulls harder. Quite by accident, I discovered that the official ratio of 2.2 Moon to 1 Sun could be obtained by cubing the distances involved in the Newtonian formula.

$$\text{Force from Body} = \text{Body Mass} / (\text{Body Distance})^3$$

$$\text{Moon force} = 7.354 \text{ E}22 \times (3.844 \text{ E}05)^3$$

$$\text{Sun force} = 1.991 \text{ E}30 \times (1.495 \text{ E}08)^3$$

$$\text{Relative force} = \text{Moon force} / \text{Sun force} = 1294713 / 595864 = 2.172$$

This number is very close to the accepted book ratio of 11/5 (2.2) and in agreement with the textbook statements that the Moon pulls harder than the Sun. Should Newton's "Law" be amended to read distance cubed? Any mathematician worthy of the name, by adding in unnecessary or obfuscating quantities and extraneous concepts, can prove absolutely anything. But does this make it true? Years after I figured this out I find in the APN this, *"This is due to the fact that the differential forces vary inversely as the cube of the distance."*²

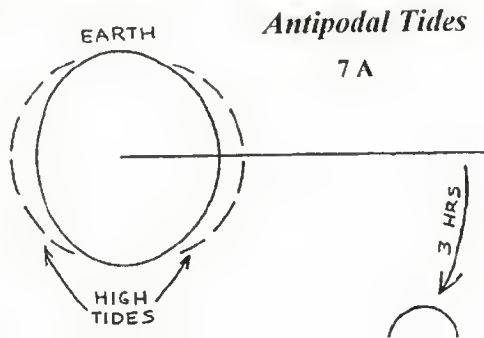
Anomaly # 2: Antipodal tides

Did you know that:

1. Many areas of the world have only one high tide per day? This is called a diurnal tide pattern. Conversely, areas with two high tides per day are called semi-diurnal. The tides in Matlacha, Florida, where we lived for a few years, are intermittently diurnal and semi-diurnal. I haven't the faintest notion what this is called but it blew my mind as I watched the tide not change from the window near my computer that faced the salt water canal behind our home.

2. Maximum high tides are supposed to occur simultaneously at the sub-lunar point and at the antipode which is the diametrically opposed location.³

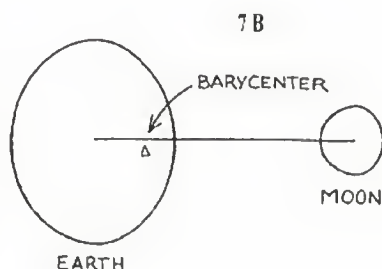
However, if you live near the ocean and can compare the time of the tides in relation to the physical passage of the Moon you find that a great time difference exists between the actual events.



The highest tides are usually delayed for

that I classed as anomalous and which needed resolution if I was to remain a believer in the innate attraction of mass for mass. Tidal pattern differences of each area are blamed on a different period of oscillation of not only the particular ocean but also the configuration of a particular location. The tidal predictions themselves are not calculated but empirically predicted from past records. They can easily make these claims for coastal harbors and bays but as we will shortly see there are islands in the center of the Pacific where the configurations are all identical but which have very different tidal patterns. In short they are practical projections based on actual experience ... not theory.

It took a few years but I finally had the entire confusion cleared up with the help of a very mathematical friend and the "American Practical Navigator". First the mathematical philosophers throw away Newton's point center concept and use the center of mass of the Earth/Moon system which they call the Barycenter.

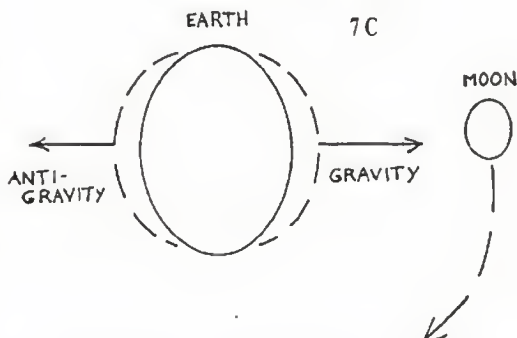


They calculate from this as if it were a point and they then convert the forces to acceleration, add in another Earth radius (which changes the terms to distance cubed), and then ... throw away that extra radius. No joke — despite this arithmetic trickery they claim the mathematicians prerogative of tossing in (or out) small quantities, claiming they mean nothing to the final result.

The same jokers who will spend a life time calculating Pi to the skillionth decimal place casually discard the radius of the earth when it suits their purpose to do so. Then they brilliantly determine that the acceleration at the sublunar point is toward the moon and that the sign of this acceleration is positive. They now calculate the acceleration at the antipodal point and find that the sign of the acceleration is negative and is therefore directed away from the Moon. They then allege that this decrease in acceleration raises the tides at the antipodal point.

This poor skeptic was flabbergasted, here they had found and proven that anti-gravity exists without realizing what they had done. Perhaps it is caused by the pseudo-mass of the Moon rotating inside the Earth and acting as a gravitational lens. Not believing my eyes I whipped out my

Tide Delay



faithful "copulator", plugged in the actual numbers and found a sublunar acceleration of + 0001128 and an antipodal acceleration of -.001073 just like they said.

Thinks I to myself this is it. Any thing ol' Mother Earth can do by accident we can duplicate. But when I tried to raise a lousy couple of million dollars to investigate the fact that the earth acts as a gravity lens and creates anti-gravity, everybody laughed at me. The same philosophers who can prove that the accelerations are negative will not believe that the Earth must be a gravity lens. Gee! I wonder why?

Anomaly # 3: Tahiti's Tide

Although much of the Pacific has diurnal tides both Tahiti and Tuesday Island have four tides a day. At both locations the tides react only to the Sun. In fact, the native word for midnight is the same as the word for high water. A travel guide to Tahiti has this to say, "*Tahiti has a very unusual tidal situation: high tide is always between noon and 2 pm., and then again 'around midnight.'*"⁴ Each Pacific atoll is very similar so it can't be configuration causing this difference. How can this be when the National Science Foundation (NSF) personally assured me that they already knew everything there was to know about gravity! They wrote me letters to prove this.

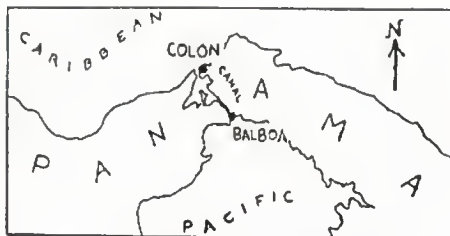
Anomaly # 4: Tidal Time Lag

The APN showed by use of vector analysis of the tractive forces why the perfect tide lags the Moon by 45 degrees, which equates to a time delay of 3 hours at the sublunar point.⁵ The philosophers tell me that gravitons travel with the speed of light. If this is true, and it must be because after all, they are the high priests of science, why should there be a three hour tidal delay when the moon is less than 2 light seconds away and the Sun is but 8 light minutes away from the Earth?

Anomaly # 5: Solar Eclipse

The port of Colon, Panama, had a solar eclipse shortly after high noon on February 26, 1979. I chose this eclipse because the latitudes of both Sun and Moon were such on that day that they almost matched the Latitude of this Port. Therefore, both bodies were almost directly overhead when the eclipse occurred. Examining the

East Coast Tide Book for that year I found that the High tide in Colon took place about a half hour before the eclipse. This led the "perfect tide" by 3.5 hours which represents an error of over 50% between theory and observation. If I had turned in a lab experiment in a physics class with this poor a result I would have flunked.



7D

Eclipse

enough to read me the data for that year. Here the effect was delayed 3 hours and 8 minutes which is only 8 minutes after the perfect tide. This is in close conformity to the prediction.

Mr. Simpson also called my attention to the fact that the ultimate high tides from this eclipse would be delayed for two days! Do you wonder why I find the tides to be anomalous to Newton's theory, and why I believe that the mathematics has been contrived to prove a prior assumption?

The tidal heights here on the New Jersey coast almost doubled in the mid 70's. I had a boat at that time and I became aware of this when it began to rise and fall five feet at my dock in Seabright, NJ. It did the same in Lawrence Harbor. My old chart of the area claimed the tidal range was only 30 inches. The range is still 5 feet.

Anomaly # 6: Near Zero Tides

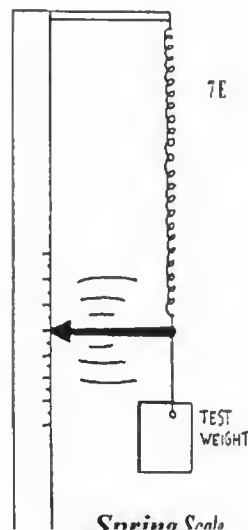
The following quotation makes me wonder if the Mediterranean is Moon and Sun proofed? *"But early scientists who lived in the Mediterranean area did not become aware of the tides until the classic India campaign of Alexander the Great. The tides exist in the Mediterranean to only a slight degree so when Alexander's soldiers reached the Indian Ocean in 320 B.C., they must have been amazed to see its tides rising and sinking every twelve hours."* ⁶

Anomaly # 7: Spring Scales

Did you know that spring scales are shunned by the scientific world? They are classed as notoriously inaccurate for scientific work because a weight on a sensitive spring scale will oscillate as time passes. Also, springs get "tired" and stretch. Each time you check the test weight the result is slightly different. The spring scale is constructed on Hooke's Law, which states that the stress in a material is proportional to the deformation of that material.

Hooke was a contemporary of the cantankerous Newton, and some nefarious Newtonian castigators have claimed that Hooke was justified when he said that Newton had filched Hooke's concept of Gravity. Gravid charges indeed!

During solar eclipses, both basement crackpots and scientists have reported anomalous weight changes on spring scales. This for example was a report from MIT found in the "Physical Review," *"The difficulty is that this*



recorded here would require an increase of tension of 1.2 KG. as calculated from the results of our paper on the period of a torsion pendulum. This is 5% of the total weight of the pendulum bob, 23.4 kg. (51.5 lb.), and is far greater than classical theories of gravitation can explain. Results of this order of magnitude have been consistently observed in Harvard over a period of 17 years." 7

I have written to MIT's Physics Department a few times over the years seeking more information. I wasn't at all surprised that ... my letters were universally ignored. But no one, not even a crackpot, has reported this from beam balance scales. Perhaps the spring scale reports the changes in that which we call gravity and is a truly accurate scale.

Anomaly #8: Torsion Pendulums

Did you know that scientists who play with torsion pendulums report anomalies with the distance squared concept of gravitational attraction? They have found that as the distance decreases the force increases beyond the expectations of gravitational theory. Since the mass of the pendulum remains constant the increase in force must be represented by some power less than the square of the distance. Strange things happen to torsion pendulums during eclipses. So strange that some investigators have postulated an unknown force. Oddly, these people are not basement crackpots, they are big league accredited academic experts.

The same article listed above goes on to speak of the change in periodicity of oscillating torsion pendulums during solar eclipses. It concludes, *"that classical gravitation theory needs to be modified to interpret his (and ours) experimental results."* *"Both our experimental findings and those of Allais cause one to question whether the classical laws of gravitation hold without modification."* 8

Instead of these anomalies creating a hard look at Newton's "Law", they are being reflected as a search for a fifth force and even a sixth force. I have no doubt that if they look long enough and hard enough they will find (like the old epicycles) as many forces as they need to accommodate the data. Either that, or we will continue to ignore the anomalies.

Anomaly #9: Deep Water Wells

Did you know that the water level in deep wells and mines is at its lowest when the Moon is crossing the longitude of each location?

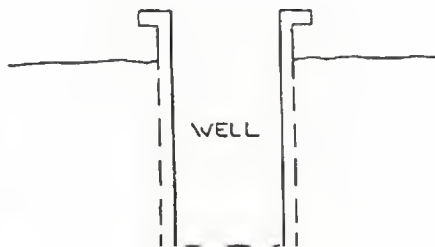
This phenomenon becomes especially apparent in wells that are located in the tropics where the Moon can pass directly overhead and thus can actually be seen reflected in the well. At this time the Moon is as physically close to that



MOON

Deep Well

7 F

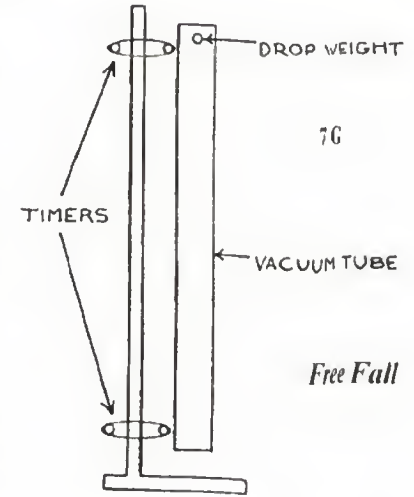


expect a delay of only one second in reaching high water after the Moon passes over the well. According to theory the Moon should exert the maximum attraction at this time and one would suppose that the water level would be at its highest. Instead we get, you guessed it, low water. This was discovered by Walter B. Lambert studying Earth tides for the government in a publication back in 1936. ⁹

How can this be when, as you will shortly see, the NSF told me that they already knew everything there was to know about gravity!

Anomaly # 10: Free Fall

In 1923, Dr. Charles F. Brush conducted extensive testing on the acceleration of various materials in a free fall vacuum drop tube. The tube used then had state of the art electro-mechanical sensors and timers. He reported that the acceleration of different test specimens showed detectable differences. Specimens that had higher densities and atomic weights like platinum, gold and lead fell the fastest. Those of lighter densities and atomic weights such as aluminum, carbon and water were slower, while slightly heavier sulfur and selenium were oddly in a slowpoke class of their own. ¹⁰



Shades of Aristotle! For a over half a century the other physical philosophers have ignored Dr. Brush's work. He was very fortunate that he hadn't tested some Lenz basalt, as this material falls in fits and starts. If he had reported these results, he would have been certified and delivered to the rubber room at the Newton Valley Funny Farm for deviant scientists. Anytime anyone reports results that are anomalous to the theories of the era, they are either ignored or professionally excoriated and punished.

Lately, some of our philosophers have acknowledged similar results by re-examining the work of Etvos. They have decided that any discrepancies in Newton's Law actually prove the Law because any substance found to be anomalous must obviously contain strange basic particles. How can this be when the NSF told me that they already knew everything there was to know about gravity!

The experimental study of the force which we call gravity began with Galileo, who had iron balls of different sizes and weights, according to legend. One day, to the oohs and aahs of a shocked crowd of spectators, he dropped both of his iron balls from the Tower of Pisa. The crowd agreed that both balls had hit the ground at the same time. This sounded the death knell of the two thousand year old Aristotelian view that the speed with which objects fall was proportional to the mass of the object.

and rhetoric, with the most sophisticated speaker eventually being classed as the noblest philosopher of them all. Come to think about it, nothing much has changed! Today it tends to be the most published rote learner who is the noblest philosopher of all. Galileo's main contribution to science was not his discovery of the periodicity of pendulums, nor the fact that he probably constructed the first practical telescopes of modern times, nor even his adamant belief that the planets revolved about the Sun. He is justly famous for being the first philosopher to use experiments to test theories.

Anomaly # 11: Ocean Pressures

I have been unable to verify a recurrent hint, usually veiled, that the pressure of water at great ocean depths does not conform with the theoretical pressure that should be recorded. I have heard that pressures are a bit less. If this is true it would constitute another direct assault on our concept of gravity. An experiment using a special deep water probe could verify or nullify these reports.

During September 1990, the Scripps Institution of Oceanography measured changes in a test weight as it descended in the ocean. I strongly suspect that the NSF financed this experiment. On 4/23/87 I proposed the same test to the National Science Foundation. I received a letter that told me that, *"Newton's theory of gravity... is a well studied and well confirmed branch of physics. As a consequence we do not support proposals which propose studying such well-known phenomena."* They also wrote, *"While these ideas are interesting they do not fit directly into most programs at the Foundation."*

This was good news and bad news. The good news was that they really didn't know what they were doing and thus failed to find that a discrepancy probably exists between depth and pressure. The bad news is precisely the same thing. Had someone thought of this experiment themselves then they would have known that you can't trust a depth gauge, calibrated by current assumptions, to determine actual depth. For this experiment you must use a marked vertical anchor line and then compare the actual depth with the observed pressure readings. Even the readings of sophisticated sonar or a transponder are not as accurate as a line because of the different temperatures of the various layers of water.

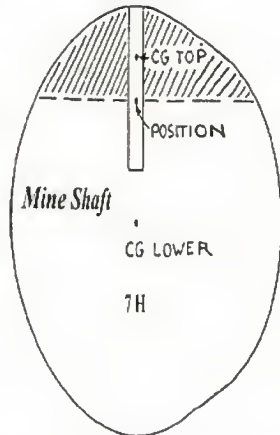
Anomaly # 12: Mine-shaft

I also began to wonder if modern scales that utilize either a magnetic field or the piezo-electric principle might be accurate enough to check the change in weight of a test mass as it is taken deep into a mine. The paradox of gravity is that although all calculations must be done as if the entire mass resides at the pin point center, at the center of the Earth a test weight should weigh... nothing! Therefore, the decline in weight should be predictable as to depth, and if the scale is sensitive enough this change should be detectable while descending the four miles to the bottom of our deepest mine.

Before I could even attempt to interest a scale company in doing the test I had to know the theoretical change in weight that was to be expected, in order to see if today's scales were sensitive enough for the job.

investigate change of weight due to depth in any homogeneous large sphere. I did this by sectioning the sphere in pieces so that the pull of gravity by mass above it, could be subtracted from the pull of the mass remaining below.

A quick check of the math of a shaft to the center of the Earth showed that the centers of mass would be equi-distant and therefore would cancel each other resulting in zero gravity. I ran my program and I was totally amazed at my first result.



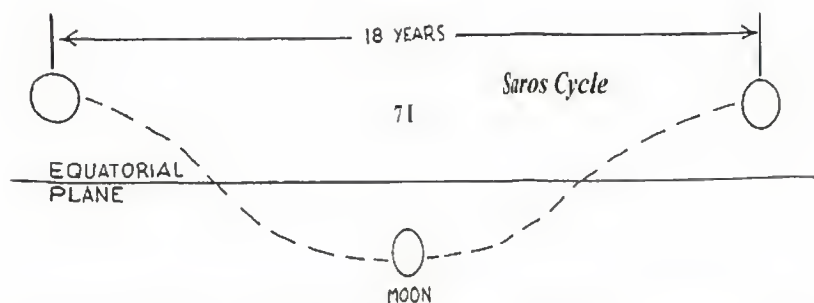
At one hundred feet into the mine-shaft, my figures showed that not only would a mass weigh nothing but that it would be repelled toward the surface because the top pull was greater than the bottom pull. Well, I've been a few hundred feet down in tunnels, and know this is not true. The program had a major error in logic or arithmetic.

I spent a week and never found my error. It always gave me bad numbers. No matter what diameter of test sphere used or the increment of depth, I got the same strange results. The center of mass of the material above you, no matter how small that mass is, is always so much closer to you than is the center of the mass that's below, that the figures always show an upward pull.

I have a sneaky suspicion that Newton did the same calculation when he decided that all the forces cancel each other on any particle in the shell of a sphere and that the only force on a descending body is due to the remaining mass and distance to center of the sphere that is left underneath. Conventional wisdom states that a descending scale will record heavier for a while because of the assumed iron core, but recent tests have destroyed this assumption. How can this be when the NSF told me that ...

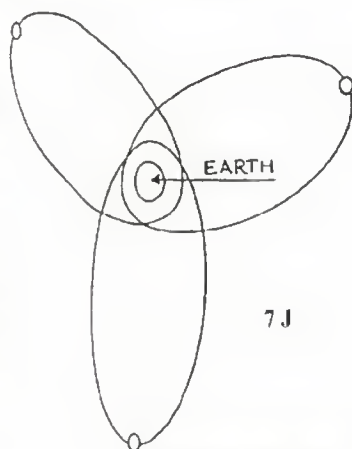
Anomaly # 13: The Moon's strange orbit

There are several 'strangenesses' about the Moon's orbit. The first strangeness concerns itself with the variable inclination of the Moon's orbit to the plane of the ecliptic. This plane is set by the center of the Earth in its yearly orbit. During an 18 year period, the Moon bobs up and down through this plane like a merry-go-round pony. This 10 degree oscillation produces the Saros cycle, but one might think that after a few billion years of crossing the plane of maximum attraction from Sun and Earth that this motion should have dampened out eons ago. Today the Moon should be as calm as an old plow horse, placidly plodding the path of the ecliptic instead of acting like a prankish colt, popping up and down for eternity. The fact that there is not even a measurable degradation of this motion is used as a great argument in favor of frictionless space. However, this oscillation would also be possible if the Moon spent some of each orbit being actively repelled by the Earth.



Despite the fact that space is filled with rock and metal fragments, hydrogen dust, solar winds, and electro-magnetic fields we still believe that there is zero friction to the movements of celestial bodies?

There is a very weird relationship between perigee, apogee and phase. When plotted as a graph of full and new Moons the shape resembles an hourglass where the full Moon and the new Moon exchange places every 6 months. The apogee does not occur at the most logical period, which is the new moon nor does the perigee occur at the full Moon. Further more, the points of apogee and perigee slowly rotate around the Earth over the course of a year.



Let's examine the strangeness of the Moon's orbit. First the strangeness is shown on the table below. The perigee (farthest distance) of the orbit is extremely variable, varying up to 13,000 km and it is closer when they coincide with new or full moons. ¹¹

Variable Apheleon

PHASES AND DISTANCES FROM EARTH IN 1990 (distances in earth radii)

	1st Q	Full	Last Q	New
Date\Distance	01/04 / 58.309	01/11 / 58.428	01/18 / 63.132	01/26 / 60.441
Date\Distance	02/02 / 58.039	02/09 / 59.876	02/17 / 63.400	02/25 / 58.407
Date\Distance	03/04 / 58.279	03/11 / 61.806	03/19 / 62.874	03/26 / 57.246
Date\Distance	04/02 / 58.677	04/10 / 63.205	04/18 / 61.648	04/25 / 56.126
Date\Distance	05/01 / 59.252	05/09 / 63.669	05/17 / 60.888	05/24 / 56.028
Date\Distance	05/31 / 60.902	06/08 / 63.491	06/16 / 59.274	06/22 / 56.474
Date\Distance	06/29 / 61.643	07/08 / 62.372	07/15 / 58.613	07/22 / 57.808
Date\Distance	07/29 / 62.876	08/06 / 61.174	08/15 / 57.875	08/21 / 59.141
Date\Distance	08/28 / 63.374	09/05 / 59.152	09/11 / 57.886	09/19 / 61.137
Date\Distance	09/27 / 63.045	10/04 / 57.814	10/11 / 58.448	10/18 / 62.358
Date\Distance	10/26 / 62.666	11/02 / 56.781	11/09 / 58.964	11/17 / 63.503

Anomaly # 14: A different law

On page 125 of Einstein's "*RELATIVITY.. The special and general theory*" while discussing the failure of Newtonian Gravity to explain the perihelion of Mercury, Einstein writes that if a different law of attraction were applied to the calculations of a planet that *"The line of orbit would not then be a closed one but in the course of time would fill up ... between the circle of least and the circle of the greatest distance of the planet from the sun."* If we substitute the Moon for planet and Earth for Sun isn't that exactly what our Moon does? Could a different law apply? And the NSF told me that they already knew everything...

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

1. p. 754, "AMERICAN PRACTICAL NAVIGATOR", Bowditch, US Documents, 1977
2. p. 761, Ibid.
3. p. 763, Ibid.
4. p. 26, "CRUISING GUIDE TO TAHITI", Davock, Wescott Cone Pub. Co., 1975
5. p. 761, "AMERICAN PRACTICAL NAVIGATOR", Bowditch, US Documents, 1977
6. p. 152, "THE UNEXPLAINED", Boschke, Pocket Books, 1978
7. p. 655, "MYSTERIOUS UNIVERSE: A Handbook Of Astronomical Anomalies, Corliss, The Sourcebook Project, 1979 Extracted from "1970 Solar Eclipse as Seen by a Torsion Pendulum", Saxl & Allen, Physical Review D, 3:3, p. 823, 1971
8. p. 655, Ibid.
9. p. 209, "CATACLYSMS OF THE EARTH", Brown, Freedeed, 1967 Extract from government publication titled "REPORT OF EARTH TIDES 1936-1938", Lambert, U.S. Coast and Geodetic Survey, 1936-38
10. p. 680, "MYSTERIOUS UNIVERSE", A Handbook Of Astronomical Anomalies, Corliss, The Sourcebook Project, 1979 Extracted from "Some New Experiments in Gravity", C. Brush, American Philosophical Society, 1911

On March 19, 1987, I discovered that gravity doesn't suck. I called it my "**Unproof of Gravity**" and I verified that something is very wrong with the Newtonian concept of gravity by creating a simple arithmetic proof. I was then in a quandary because I had no idea of what to do with the information. Being unwashed, uncouth, abrasive and unlettered, I already knew that "scientific journals" would never print anything that I wrote. The high priests of science surely wouldn't tolerate an outsider trespassing in their domain. It is now over a decade later and after years of trying, I know that my wild and crazy hunch was right.

I was in high school when the great Velikovsky flap occurred. This man wrote a book called "*Worlds in Collision*" which used ancient myth and writings, including the Bible to prove that a global catastrophe had struck the Earth sometime between the last Ice Age and before writing became widespread. I watched the whole world of science castrate his work and then go on to cauterize the wound with hot pokers. Mini-minded mental mid-gets pompously asserted that he should have submitted his work to the scientific journals. These high-minded refuters either didn't understand, or refused to realize, that only inchy-pinchy increases of a single decimal place type of work will fit on a paper small enough for a journal. A man who paints a bold new scientific panorama doesn't reduce it in size to fit a few journal pages. The scope of this man's work required a book-sized document. As does mine!

Hugh Auchincloss Brown (**HAB**) was similarly attacked in the '60s by the same type of ideological idiots because (again) his book dealt with other pre-historic catastrophes. It was titled "*Cataclysms of the Earth*". Here again the scope of his work precluded a journal sized format.

When I finally prepared a paper on my "**Unproof of Gravity**" I sent a letter of inquiry to various physics journals and science magazines. Only one of them even bothered to answer my letter. You don't think that my title, "Gravity Doesn't Suck!", had something to do with this, do you?

In the scientific world reading outside one's field is usually classed as poor use of valuable time. Still, the discovery that gravity doesn't suck was the direct result of wasting my time reading about and examining anomalies that professional philosophers would never waste such time on. I was attempting to arrange the various gravitational anomalies in some logical order. But then I was trapped, once again, by the strange orbit of the Moon.

As we saw in the chart in the last section, the Moon's distance from Earth varies greatly during each lunar month and as I rechecked some of the data on these distances, I had a moment of inspiration. I would do an actual calculation using the "Law" of Gravity to find the gravitational forces of both Sun and Earth at one particular moment in time.

To simplify the calculations and the visualization, I would choose a time when the Saros

(during a normal summer), and during apogee (when the Moon is 384,400 km from Earth as it gets), and during a solar eclipse (that period in time when the Moon is exactly lined up between Sun & Earth).

I chose apogee because no matter what the calculations using the "Law" of Gravity formula showed, we know by observation, that the Moon is at its limit of range and must move closer to the Earth. The choice of the Earth/Sun distance was arbitrary so I chose aphelion. The data was taken from the 54th edition of the CRC Chemistry & Physics Handbook.

	Sun	Earth	Moon
Distance from Earth (km)	1.520 E08	_____	4.0550 E05
Mass (kg)	1.991 E30	5.979 E24	_____

By subtracting the Earth/Moon distance from the Earth/Sun distance I determined the Sun/Moon distance.

$$\text{Earth/Sun distance} - \text{Earth/Moon distance} = \text{Moon/Sun distance}$$

$$1.520 \text{ E08} - 4.055 \text{ E05} = 1.498 \text{ E08}$$

Physics allows us to isolate the forces on a body. Since we are interested only in the relative forces on the same body (the Moon) we can simplify the gravitational formula by eliminating the gravitational constant and the mass of the Moon each time we calculate. Using Newton's full formula $F = G \times M_1 \times M_2 / D^2$ gives an identical relative force as calculations using $F = M / D^2$.

From the general formula listed below we can now calculate the individual forces of Sun and Earth upon the Moon.

$$\text{RELATIVE FORCE} = \frac{\text{MASS}}{\text{DISTANCE}^2}$$

$$\text{Sun Force} = \text{Sun Mass} / \text{Moon-Sun dist} \times \text{Moon-Sun dist}$$

$$= 1.991 \text{ E30} / 1.498 \text{ E08} \times 1.498 \text{ E08} = 8.872 \text{ E13}$$

$$\text{Earth Force} = \text{Earth Mass} / \text{Earth-Moon dist} \times \text{Earth-Moon dist}$$

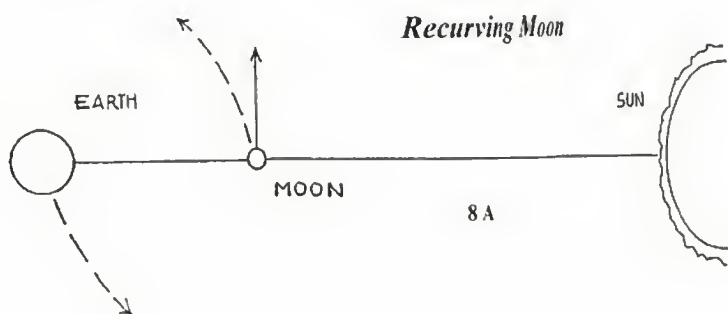
$$= 5.979 \text{ E24} / 4.055 \text{ E05} \times 4.055 \text{ E05} = 3.636 \text{ E13}$$

$$\text{SUN FORCE} / \text{MOON FORCE} = \text{RELATIVE FORCE}$$

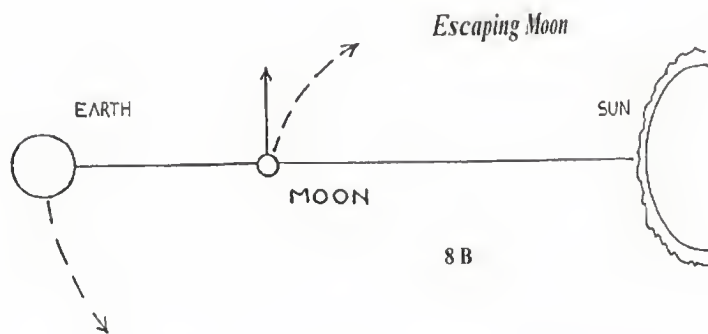
$$8.872 \text{ E13} / 3.636 \text{ E13} = 2.44$$

I found that the Sun's force was stronger. In fact, it is over twice as powerful! This of

only must the Earth force be consistently stronger to counteract the Sun's pull, but it must also be strong enough to act as a tether on the Moon and re-curve it toward the Earth, especially when it is at apogee. Only when the Sun's force is less than the Earth's, should the Moon begin to re-curve back toward the Earth. Remember that we picked the moment in time when the Moon was as far from the Earth as it gets.



From my calculations we see that the Sun's force exceeds that of the Earth and the Moon must respond by veering slightly toward the Sun. In this instance, the Earth's attraction decreases even faster; and the Sun's attraction increases even faster, thereby increasing the Sun's relative force and accelerating this movement away from the Earth. We know by observation that this does not happen. Despite the "Law" of Gravity, the Moon re-curves toward the Earth.



If the forces were equal, the Moon would continue on its path which at this moment is tangential to both Sun & Earth. This path would see a weakening of both Earth & Sun attraction due to the increasing distance.

Total solar eclipses at the maximal range, on which I based my calculations, are much rarer than regular total eclipses but they do happen. The simple fact is that during the entire week of every new moon, no matter whether the Moon is at perigee or apogee, the Sun force is stronger and the Moon should move toward the stronger force!

According to the previous calculations, the Moon has no reason to orbit the Earth. This

larger than the Sun's force, and this opens up another can of gravitational worms (or wormholes?), because Cavendish weighed the Earth and established the gravitational constant by using distance squared, not distance cubed.

Subsequent philosophers using his figures and the distance square concept have calculated the masses of everything in the universe. And if you obtain the masses from the experimental force by using distance squared, how can you now use distance cubed to obtain the forces?

For many years I had hoped to do no more than abrade a few grains from that cornerstone of our science called the "Law" of Gravity. Never in my wildest dreams did I envision cracking it in half as I have shown here. I shall spend the rest of my life gleefully stomping on this cornerstone of science, until the rock is in fragments and the fragments are just moldy dust!

I have been attacked countless times by scientific apologists, most of them Mensa members, for not being able to offer a strong theory to replace the one I destroyed. This is grammar school orthodoxy! This is how the teachers ultimately destroy the bright kids who ask heterodox questions and are capable of original thinking.

Only on a TV show is it the coroner's job to find the murderer. I make no apology for leaving the new theory of gravity to the next Newton. Isn't it more than enough to have done what was denied the millions of physicists who were born and died all over the world since Newton's time. The real question here is, "Why didn't they discover my "Unproof?" Or ... perhaps they did as we shall see in the next section.

Someday I would like to do a study on the academic levels attained by the great innovators and the great men of science. I am pretty sure that I will find that the great majority of the important work was accomplished by men and women without Ph.D.s. I believe that schools create experts from the best rote learners available. I know for a fact that the single worst thing you can do in any class, from kindergarten through college, is to ask a question the teacher can't answer. In that instant you mark yourself as a smart-ass! If there is one thing a dominant authority figure can't stand, it's a smart-ass. Perhaps that is why so many men in Mensa never finished college.

Not that I will ever live to see the religion of science cast out its major tenet and repeal Newton's Law of Gravity. But each time someone reads about my "Unproof" that day comes closer.

Someday this glaring anomaly will trip a trigger in some ingenious mind and out will pop a new set of equations absolutely proving forever that ... Newton was wrong! I predict that when that happens an anti-gravity engine will be just around the corner. At the present time we send our astronauts less than 350 miles into the sky. To accomplish this feat we strap them on top of the equivalent of a million pounds of TNT. Real space starts between the planets, not between Earth and Moon, and surely not below the protection of the Van Allen belt. Only an anti-gravity engine will allow us to lift the 6 foot of radiation shielding we must have to protect us from the radiation of the Van

Since I unleashed my "Unproof" I have been told some very strange and wondrous things about celestial mechanics by my fellow Mensans some of whom have become very angry, hostile, bombastic, nasty, and just this side of violent. They have such outlandish claims:

1. The Sun's force is actually centered on the Earth/Moon barycenter and that isolating the forces on the Moon is not allowed.
2. The Sun's force is reflected by the Earth which completely cancels out the force of the Sun on the Moon.
3. The best one (as referred to before) was in the letter I received from the chief guru of gravitational physics at the National Science Foundation after I applied for a series of grants to retest gravity in April 1987.

April 29, 1987

Dear Mr. Rene'

Thank you for your letter of 4/24/87. As you correctly computed the force that the sun exerts on the moon is almost 3 times greater than the force the earth exerts on the moon. However, the conclusion which you attempt to draw from this fact is fallacious.

The error in your reasoning is due to the fact that you neglected to take into consideration the force that the sun exerts on the earth. The sun attracts both the earth and the moon. That is why they both orbit the sun. However, they orbit it together due to their mutual attraction for each other which is indeed weaker than the sun's force on either of them. This weaker force therefore only perturbs the dominant motion of each body about the sun.

Newton's theory of gravity as applied to the solar system is a well studied and well confirmed branch of physics. As a consequence we do not support proposals which propose studying such well-known phenomena.

Sincerely,

Arthur Komar

*Program Director for
Gravitational Physics*

I have no idea what he is talking about. He seems to be saying that not only am I not allowed to separate the forces but also that there is a magical bond between Earth and Moon that is unbreakable. In fact, all my "Unproof" does is examine the bond of each for the other. I am guilty of jokingly calling the Earth a gravitational lens but it seems

turn Newton's theory into a "Law" then the NSF would have supported it.

The barycenter concept concocted by Newton states that the center of gravity of the Moon is located inside the Earth, because if both bodies were placed on a teeter-totter the balance point would be located inside the Earth. He then declares the Earth and Moon are to be treated mathematically as one body. I call this Bullshit because this "theory" is in direct contradiction to the observable fact that the Earth and Moon are two separate bodies. Look up at the Moon tonight and then you tell me that Earth and Moon are one.

I can reduce their concept of Barycenter to the ridiculous by proving that the center of gravity of most planet's moons lie within the parent planet. I can prove that almost each and every celestial body is one with the Sun, because the so-called Barycenters of most of them, planets, moons, asteroids, and even comets lie within that incredible massive body.

I am not trying to be a sophist, but if this were true then gravity would be a meaningless concept. If something is an integral part of another thing we need no gravity to hold it there. These apologists would negate 500 years of physics and resort to magic just to save Newton's theory.

Newton complained bitterly in letters to friends that others were ascribing to him the notion that matter has an innate property to attract other matter. Yet if you read the "Principia" it is hard to escape this conclusion. Josiah Gibbs, who once said that a physicist must be at least half sane but that there are no limits on a mathematician, was a most perceptive man.

If my data, logic and arithmetic are correct, the "Law" (or even the "Theory") of Gravity is erroneous, and much of modern science will have to be thrown down the chute. A decade has passed, and although I sent the first edition of my book free to many physicists, mathematicians and other professionals no one ever responded. Not even a thank you. I do know that the post office "lost" almost half of the ones I sent to friends and acquaintances, but even accounting for a 50 % mortality I should have received some comments if my work hadn't so upset their EBS.

I subsequently mailed letters to another 100 Mensa professionals asking questions about my ideas only in each one's field of expertise. I received about 30 answers and each one solemnly declared words to the effect that, *"I know you're wrong, but I can't quite prove it."*

I spent most of my life working as a carpenter and this would be like me telling a builder that he is building a roof wrong but not being able to prove it. The only reason they didn't prove me wrong was because they couldn't. The pedantic experts would gleefully nail me to a cross and light a fire under me if it were legal.

My "Unproof" has knocked the cornerstone from under Newton's celestial mechanics, Einstein's relativity, Hubble's expanding universe and the Big Bang. They will also have to throw away black holes, quasars, giant exploding stars, neutron stars, super strings and hundreds of other useless theories. This may well explain why our 40 year multi-

Our philosophers will now have to go back to Square One, an action I believe to be long overdue! Not to worry, Oh Great Philosophers, for this will enhance your rice bowl, not destroy it. Three hundred years of science will now have to be re-configured. This time, Oh great and arrogant philosophers, create no more natural laws — only beautiful theories. Let theories remain just that — theories. No more — no less.

Now you are entitled to believe anything that you want. However, remember that when observational data, or experiment conflicts with a theory no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

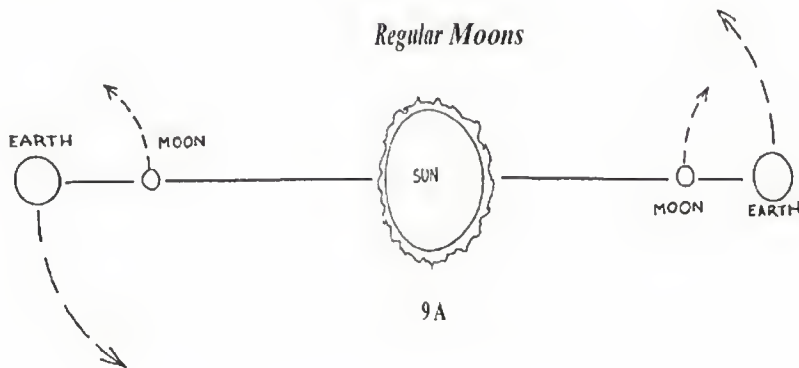
SNAKY MOON

A few weeks before I discovered my "Unproof" of gravity, my wife and I had set up a dinner party for the following Friday night. I prepared a short paper and gave a copy to each of my friends who were interested in that sort of thing, hoping that they might take the time to find the holes in it, if any.

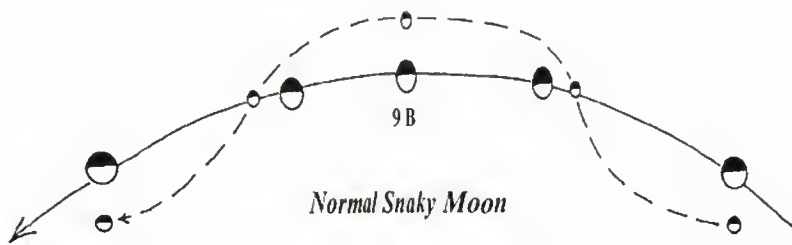
In that document I pointed out that the Moon, relative to the Earth had very variable momentum. One of my friends concentrated on this and a month or two later claimed to have derived a unique concept of the Moon's orbit that put my "Unproof" in jeopardy.

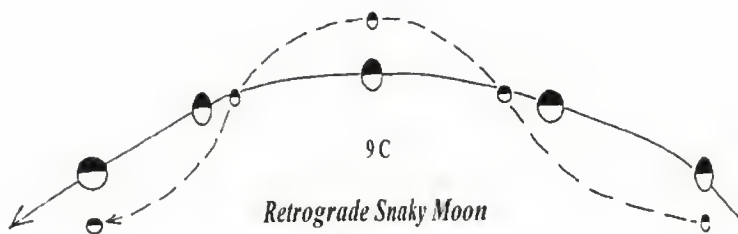
His "new" concept was contrary to everything we have been taught since antiquity; contrary to every sketch and diagram we ever saw, and contrary to everything we ever heard. His Moon didn't directly orbit the Earth at all. What it did was to follow a sinuous path around the Sun while it interweaved with the Earth. With this concept it made no difference if the Sun pulled harder on the Moon than the Earth did.

We, the common people have been taught to believe, that the moon directly orbits the Earth like race horses circle a race track. The following drawing is not to scale and the left side shows the non-retrograde Moon as it directly orbits the Earth. If our moon was retrograde it would orbit as shown on the right.



The orbits of snaky moons would approximately be like the next set of drawings. The first shows a snaky moon with a normal orbit.

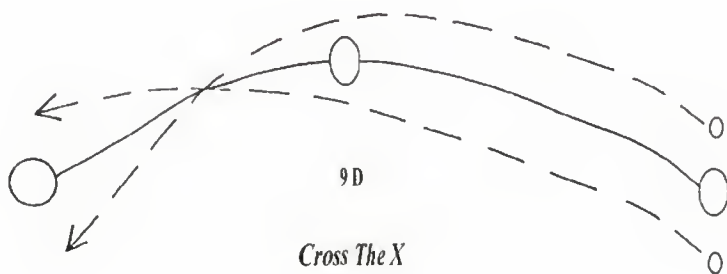




For a few weeks I believed his snaky moon concept to be true because it also brought the Moon in harmony with Kepler's third law and it eliminated the twin problems of the Moon's tremendous variation in kinetic energy and momentum as it completed each orbit.

However, about a month later I saw that if our Moon behaves in this fashion then all 33 moons of the solar system, each moonlet and ring fragment, including our artificial satellites, must also sinusoidally interweave with their primary. Scrutinizing the 13 Jovian moons, some of which revolve in retrograde motion, I saw that sinusoidal interweaving couldn't possibly be true unless the philosophers declare some of the moons and artificial satellites as special cases. To my mind declaring special cases in this instance would be no different than Tycho Brahe's desperate additions of epicycles to the Ptolmaic theory. Obfuscations of this sort only delay the creation of better theories.

As shown on the following sketch a normal moon and a retrograde moon each cross the primary planet's orbital track. Because each moon has a different period, sooner or later they will both try to occupy the same volume of space at the same time.



Each satellite must physically cross the time track of their primary's orbit, twice during their individual months. They must also cross the time tracks of each of the other satellites in their respective systems. This is equivalent to a figure eight stock car race where each car crosses the X twice each lap.

Just as two cars (one moon) there is absolutely no chance for a collision but as the

number of cars (moons) increases, even if the track is made bigger the frequency of collisions must increase. Should a race continue for a long enough period of time then it is a certainty that even in a two car race there will ultimately be that final collision. Add to this the complications that would result if one or more of the cars were running the track the wrong way which is what retrograde moons do.

The frequency of accidents in a cross the X race is drastically reduced by the individual drivers skilled use of accelerator, brake and steering wheel. However, consider the situation where celestial bodies are crossing the X. Here, if the Law of Gravity is true, there is no driver and each body is being blindly attracted (steered) by gravity toward each other. Instead of brakes there is only pedal to the metal acceleration.

Jupiter has 13 moons (some of which are retrograde), a few hundred moonlets and a few million ring fragments. If we consider only Io, Europa and Ganymede (Jupiter's three closest moons) we have five crossings of Jupiter's orbital track every 85 hours or one crossing every 17 hours. The number of crossings per Jovian year by all 13 moons is phenomenal and if sinousoidal interweaving were the rule, there should be chaos surrounding the planet instead of the tranquillity which our probes have reported.

From the day I handed my "snaky moon" friend the paper on my "**Unproof**", our 35 years of friendship began to deteriorate. It would take almost four more years before I found out that the modern astronomers, the wise men of modern times, similar to their counterparts, the wise men of antiquity, had kept the snaky moon concept a secret. My friend had also "neglected" to tell me that he hadn't created the snaky moon concept and that "his" concept was found in basic college astronomy texts dating back over 40 years.

The confirmation of this came from an old college text on astronomy printed in 1959. A statement proclaims, "*A drawing exactly to scale would show that the annual orbits of both the earth and the moon are always concave to the sun.*"¹ I have not been able to find this statement in any earlier books so I must presume that it has been recently added to our knowledge of astronomy. Another friend sent me a copy of a page in some other book whose author had the gall to state that our moon was the only moon that slithered this way. I suspect that the Snaky Moon was the last epicycle and was added after some other outsider discovered my "**Unproof**".

Drawn to scale or not drawn to scale, there is no way the orbit of the Moon can always be concave to the Sun. No matter how far we stretch out the interweave, a moon's motion must alternate between convex and concave. Since those same people also claim that Moon and Earth both rotate around their common center of gravity (meta-center) then the Earth's orbit should also alternate between concave and convex to the Sun.

I could see that if I had a perch in space, high above the solar plane, I could watch both Moon and Earth and in less than two weeks I would be able to see whether the Moon interwove or encircled the Earth.

Over the years I played with this concept repeatedly trying to find a way to absolutely prove the snaky moon was erroneous. A few years after the original publication of this

Earth's track: then used its distance as a radius from each day's planetary time track advancing the heading by 28/360 degrees each day. The figure drawn was a cycloid and was not sinousoidal. I did the same thing on large drawing paper for Metis and Almathea, two Jovian moons, and again cycloids developed.

I finally found out by calculation that the centrifugal force of each planet almost equals the gravitational force on that planet. But what amazed me was that these forces also equaled each other whether the Moon circled the Earth or the Sun. This question arose, *"If a body moves convex to the point of orbit how can there be centrifugal force?"* I defy anyone to make a mechanical model that demonstrates this! Thinking about this question finally pointed the way. On February 6, 1993, almost six years after I created my "Unproof", I found the answer. To begin we need the definition of the words revolve and revolution.

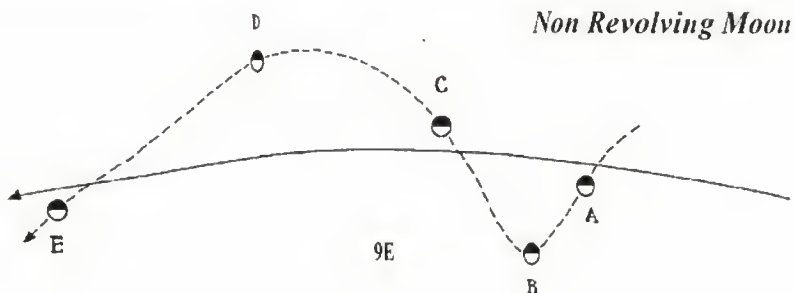
Revolve: "To orbit a central point."

Revolution: "Orbital motion about a point especially as distinguished from axial rotation." ²

Then we need the full description of this theory as found in an astronomy text:

"Because the earth and moon revolve around a common center between them once a month while they are making the annual journey around the sun, the orbit of each one relative to the sun is slightly wavy. What we have called the "earth's orbit" is strictly the orbit of the center of mass of the earth-moon system. Imagine the earth and moon joined by a stout rod between their centers; the center of mass is the point of support of the rod for which the two would balance ..." ³

It finally dawned on me that to orbit, to revolve means to encircle a single point. To do this the orbiting body would have to completely change direction by 360 degrees. If the direction toward the Sun in the following drawing is considered to be heading 180 degrees then the Moon in the drawing has the following headings at the points shown. The drawing on the next page shows this sinousoidal motion and I refused to take the liberty to smooth out the curve by moving the Moon a bit.



E- 135 deg.

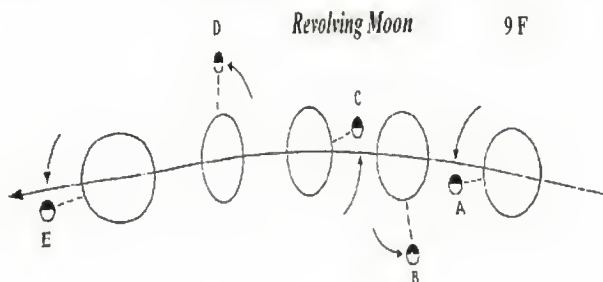
D- 090 deg.

C- 045 deg.

B- 090 deg.

A- 135 deg.

Here the Moon never "encircles" the Earth and therefore cannot be considered to "mutually revolve" about the Earth. On the drawing below the moon actually revolves 360 degrees and fulfills the requirements of revolution. It orbits the Earth!



E - 270 deg. D - 180 deg. C - 090 deg. B - 000 deg. A - 360 deg.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

Addendum

In the early fall of '98 I saw another photo of Jupiter and its rings and this time a bell rang! The philosophers tell us that the rings are made up of moonlets. If these moonlets were doing the snakey dance they would have photographed as a long sinuous snake. Since they don't, they must be orbiting the planet. Therefore, unless the philosophers want to plead special case, all moons must directly orbit the planet and my "Unproof of Gravity" stands.

I must add here that almost 30 years ago, Walter C. Wright Jr. also discovered what I would later call my "Unproof of Gravity". He believes that all the bodies in the universe repel each other because they are magnetic. He maintains an exhibition of his theory in his home town of Fairfield, CA.

NEWTON LIED

Just about every time I put pen to paper or opened my big mouth about my “Unproof”, I was beaten and belabored about the head and shoulders with the dull and blunt instrument called appeals to authority. That authority was Issac Newton, the mathematician, who quickly became the bane to my existence. I decided to see if I couldn’t “get da goods on im” as we used to say when I was a street kid. To effect this I “wasted” a good bit of my time by sniffing through Newton’s “*Principia*.”

The gospel according to Saint Newton is a difficult book to understand because both the topics and proofs play hop-sotch by leaping all over the book. I scan read the entire thing dropping blue marker papers in areas of interest and then began to zero in on errors, poor deductions and leaps in faith. In mathematics, unlike religion, leaps in faith are not tolerated. The only mandate in mathematics is that in each step of a proof the value must be valid, the terms appropriate and the logic impeccable. Not that mathematicians seem to pay much attention to these strictures but, at least, that’s the way it is supposed to be.

On June 11, 1987, the newspapers carried an Associated Press release about a college kid from the University of Chicago. He had won a prize for proving one of Newton’s calculations off by 15 %. The student wondered how the professional philosophers had missed this one error for 300 years. During my wanderings through the murk of Newton’s work I discovered that many of his arithmetic values were not only wrong, by modern standards but also different each time they were listed. I was not too surprised to find that many of his predictions were also wrong and I also stumbled on a mind boggling boo-boo. He based one of his most important proofs on an assumption I had whimsically proven untrue many years before while writing one of my Mensa columns. What bothered me at the time was how the professional philosophers of three hundred years missed finding what I found in the “*Principia*.” Imagine my surprise when a retired professional physicist, a Mensan, showed amazement because I had read Newton’s book. He had never read the book nor did he know anyone who had. Unlike that young scientist, all I received for my efforts was abuse.

Without further preamble I firmly state that Newton was the mathematician who might have been responsible for that old adage, “*Figures don’t lie but liars do figure.*” He allegedly spent 20 years writing the “*Principia*” where in a fashion, typical to mathematicians, he would “prove” something and then later use that proof as a stepping stone to prove something else. By a succession of proofs he eventually proved that the force of gravity is determined from the product of each mass divided by the square of the distances between their exact centers.

Many years later in “Newton’s Clock” I found this statement by Ivars Peterson, “Moreover, historian Richard S. Westfall has pointed out that Newton wasn’t entirely immune to the temptation to adjust calculations and data to fit his preferred theories.”¹ Where I come from this is called lying!

The cause of gravity is supposed to be the innate property of mass to attract all other mass. The reading of the "Principia" leads to no other conclusion. Because many of Newton's peers preferred the Descartes theories to his action at a distance without mediation of any other entity, Newton later began to vacillate and many times vigorously objected to that interpretation. In a series of letters to Bently written around 1692 he wrote, *"You sometimes speak of gravity as essential and inherent to matter. Pray, do not ascribe that notion to me,"*¹

In a later letter he states, *"It is inconceivable, that inanimate brute matter, should, without the mediation of something else, which is not material, operate upon and affect other matter without mutual contact, ..."* He continues, *"That gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance through a vacuum, without the mediation of any thing else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity, that I believe no man, who has in philosophical matters a competent faculty of thinking, can ever fall into it."*³ These statements, so contradictory to the way we think of gravity, caused me to begin a very close examination of his book.

Newton's Planetary Order:

While speaking of the density of the various planets and their distance from the Sun, he believed that *"the denser bodies always possess the nearer places,"*⁴ The densities of the bodies are all in grams per cc. Pluto has been left off the list because of the recent controversy regarding its density. The first column lists the actual position of the planets, the second column lists the planets in order of their decreasing density and the third column lists the modern densities. A star indicates a match between his prediction and actuality.⁵

Newton's Densities

Newton's Prediction	Position By Density	Actual Densities
Mercury	Earth	5.519
Venus	Mercury	5.431
Earth	Venus	5.256
* Mars	Mars	3.907
Jupiter	Neptune	2.272
Saturn	Uranus	1.650
Uranus	Jupiter	1.337
Neptune	Saturn	0.688

Mars is the only match making his success rate one for eight. This is only as accurate as pure chance would dictate. His power of scientific prediction was dismal!

Newton's Densities of the Bodies:

The modern density of the Moon is listed as 3.342 and it is 1.41 for the Sun.⁶ In this

that each is greatly in error. To compute the percentage of his error I subtract the smaller from the larger and then divide by the smaller. First he makes a statement that the relative densities of the bodies are as follows: ⁷

Newton	Sun = 100	Jupiter = 94.5	Saturn = 67	Earth = 400
Today's Densities	Sun = 1.41	Jupiter = 1.337	Saturn = .688	Earth = 5.519

All the following statements were made by Newton:

1. Jupiter's density would be 1.332
 $(1.337 - 1.332) / 1.332 = .0037$
 $1.41 \times .945 = 1.332$
the error is .37 %
2. Saturn's density would be .944
 $(.9447 - .688) / .688 = .373$
 $1.41 \times .67 = .9447$
the error is 37.3 %
3. Earth's density would be 5.64
 $(5.64 - 5.519) / 5.519 = .0219$
 $1.41 \times 4 = 5.64$
the error is 2.2 %

Then he sets the value of the Moon's density in relation to the Earth and the Sun. ⁸

1. Moon's density is 4891/4000 of the Earth's
 $(6.748 - 3.342) / 3.342 = 1.019$
 $(5.519 \times 4891) / 4000 = 6.748$
the error is 102 %
2. Moon's density is 4.4815 times the Sun's
 $6.789 - 3.342) / 3.342 = 103.1$
 $1.41 \times 4.815 = 6.789$
the error is 103 %

Again we find new values for the Moon in relation to Earth & Sun. ⁹

1. Moon is denser than the Earth by 23 to 16
 $(7.933 - 3.342) / 3.342 = 1.373$
 $(5.519 \times 23) / 16 = 7.933$
the error is 137 %
2. Moon is denser than Sun by 5.7 times
 $(8.037 - 3.342) / 3.342 = 1.404$
 $1.41 \times 5.7 = 8.037$
the error is 104 %

Only one out of 7 is correct and one more is close.

Newton's Magnetic Attraction:

According to Newton, the power of a magnet diminishes as to the cube of the distance. ¹⁰
Magnetic fields which are easy to test, vary by the square of the distance. Newton's gravity, which is impossible to test, seems to vary by the cube.

Newton's Tidal Gravitation:

Newton claims the Moon's force on the sea is 4.4815 times greater than that of the Sun while our current value is 2.2 to 1. ¹¹

$$(4.4815 - 2.2) / 2.2 = 1.037 \quad \text{the error is 103 \%}$$

These errors are microscopic when compared to the assumption by which he “proved” that the Moon was held in orbit by the force of attractive gravity. Here he writes, *“Suppose several moons to revolve about the earth, as in the system of Jupiter or Saturn; the periodic times of these moons (by argument of induction) would observe the same law Kepler found to obtain among the planets; and therefore their centripetal forces would be inversely as the squares of the distances from the centre of the earth, by Prop. I of this book.” “... And therefore the force which retains the moon in it's orbit is that very force which we commonly call gravity;”* ¹²

He is loosely referring to Kepler’s Harmonic Law, which states that a planet’s orbital distance cubed divided by the period squared gives a constant that should be the same for each planet.

$$\text{KEPLER NO.} = \frac{(\text{DISTANCE})^3}{(\text{PERIOD})^2}$$

And... it is absolutely true ... for every planet.

Kepler’s third law, contrary to what you may have been told, is the only mechanism that can calculate the orbit of a planet from its period and conversely the period from the orbit. Kepler’s Harmonic Law states that the cubes of the mean distance of the planets from the Sun are proportional to the squares of their times of revolution about the Sun. The key word here is the Sun and please note that mass means nothing, only velocity counts.

Kepler was a mathematician by training and an astrologer for survival and although he lived in dire poverty, even with Tycho’s stipend, he was faithful to his charge. He patiently and methodically tested idea after idea against Brahe’s hard observational facts. In this time and place there were no computers, slide rules, or logarithms. Even the “Ten Place Trig Tables” by Vega were far in the future. For this Herculean task his only weapons were the goose quill pen and expensive paper. He was also called on to defend his possession of the raw data from the heirs of Tycho. It took 20 years, but he discovered the three geometric laws of planetary motion. Later Newton would use the Kepler Laws as the basis for his three laws of motion and the theory of gravity.

One day, years before, I had focused my scientific skepticism on Kepler’s third law. I couldn’t believe that the planets discovered since Kepler’s time would conform. How could his law possibly be valid? There is no mention of mass here and the distance is cubed not squared. Why should the orbits be in harmony with the time of revolution? If true then the forces that govern planetary motion must be based on velocity and inertia, not upon mass. I had to test theory with calculation.

I had called on my computer, to “compute” the Harmonic truth for all nine planets. I fed in the radii of the orbits in Earth units (AU) and the periods in sidereal years (SY). I would compare each planets Kepler number to that of the Earth by subtracting the smaller from the larger and then multiply this by 100 to obtain the deviation from Kepler’s Law

Planet	Dist.(AU)	Period (SY)	Kepler #	Deviation (%)
Mercury	.38744	.240899	1.002175	.217
Venus	.72281	.615185	.997840	.215
Earth	1.00000	1.000000	1.000000	.000
Mars	1.52330	1.880820	.999221	.007
Jupiter	5.20250	11.861300	1.000856	.008
Saturn	9.54070	29.456800	1.000851	.008
Uranus	19.19000	84.008100	1.001342	.134
Neptune	30.08600	164.784000	1.002913	.291
Pluto	39.50700	248.350000	.999755	.002

The greatest deviation was for Neptune, with an error of less than three tenths of a per cent proving that this law works. I would suggest that the very small deviation for Pluto is caused by greater accuracy in the data on this planet. Pluto has been recently subjected to an intense scrutiny with modern instruments. Our philosophers are probably complacent about the old data on the other planets, data that was mostly obtained before the modern era of exquisite instrumentation. I would also suggest that the physical orbits of the planets may not be as precise on a year to year basis as we suppose. I will also predict that all planetary motion will be found to vary in such a way that Kepler's Harmonic Law will be found to be even more accurate than these figures show.

Here is a Law that needs no finagle factors because it just plain works even though it has been modified down through the centuries to produce slightly more accurate answers. It is in almost total harmony with observational data. No need here for a philosopher to arrogantly tell me that I don't understand and/or infer that I am too stupid to ever understand. But we are told that it is the force of gravity that governs the motions of the planets. How do they isolate the individual forces that are involved with planetary motion? They must use simultaneous equations.

But they are dealing with 10 forces at the same time and equations can only absolutely solve a problem when there is only one unknown. If there are two unknown values you get multiple answers. So gravitational solutions must be like ordering in a Chinese restaurant: one force- "Gloup" A and 9 force "Gloup" B, Won-ton and flied lice on side. This poor skeptic sees the possibility of an infinite number of approximate answers.

In the original book, "Mensa Lectures", I calculated the Kepler number for the all 32 moons of the system and found that the numbers ranged 3.239 -E07 to 5.074 -E01. This is a spread of over 1.5 million or 6 magnitudes. Newton had erroneously assumed that Kepler's original law would also apply to 32 known moons of our system.

After publication I found out from a quasi friendly Mensa Astronomer that the astronomers had kept another secret from my physics books and even the CRC Handbook. Kepler numbers are now derived by adding the orbited body's mass to that of the satellite in question, multiplying that by the satellite's period squared and dividing that product by the satellite's distance cubed. I did a few and found it resulted in much better answers but I leave all of this to the next interested person.

Prepare ye now the stake, the faggots and the torch for I am about to utter heretical thoughts. I believe that the moons and planets are acted upon by electrical forces generated by the Sun. I feel it reasonable to believe that there must be at least some additional forces at work on the system.

We are told that Newton wrote the "Principia" over a period of twenty years. My findings indicate that either this otherwise meticulous man did not proof read his copy or that the Father of modern science developed and used any figures that would prove whatever contention he was concerned with at the time. I also find it incredibly strange that these errors were not found and made public during the 301 years since the publication of the "Principia."

Were the priests of the scientific religion so blind? Why should a heavy construction hard hat, a man without academic credentials, a man who is a basement crack pot have to point out the obvious?

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

1. p. 87, "NEWTON'S CLOCK", Peterson, W.H. Freeman, 1993
2. p. 633, "NEWTON'S PRINCIPIA", Cajori, University of California, 1934
3. p. 634, Ibid.
4. p. 566, Ibid
5. p. F-160, "CRC Handbook of Chemistry and Physics", 54th edition
6. p F-169, Ibid.
7. p. 417, "NEWTON'S PRINCIPIA", Cajori, University of California, 1934
8. p. 482, Ibid.
9. p. 595, Ibid.
10. p. 414, Ibid.
11. p. 482, Ibid.
12. p. 409, Ibid.

In my last year of high school I read Immanuel Velikovsky's "*Worlds in Collision*" and was exposed to his theories. He believed and offered some proof that Venus had been ejected by Jupiter as a comet which then erratically wandered about the solar system almost colliding with Earth. It also upset the orbit of Mars so that it, too, came sliding near the Earth a few hundred years later. He made his predictions in 1946 and he was vilified by the high priests of science years before the first space probe would leave the ground. The strangest thing is that many of those predictions were subsequently shown to be true by space probes and I know of not one of his predictions that have been proven to be wrong.

In the late '60s another book, "*Cataclysms of the Earth*", exposed me to Hugh Auchincloss Brown's (HAB's) belief that the planets were held in orbit by the combined repulsion of all the stars and the Sun. I had to reject that theory because if that were true our planets would be pushed to some point halfway to the nearest star.

Around the turn of this century, Tesla had predicted that the Sun was an incredible charged electrical body and was therefore creating what we now call the solar wind. He claimed that it had the incredible electro-static charge of $50 + E 18$ esu and an electrical pressure of 216 billion volts.

Tesla, the man who is barely ever mentioned in physics books, single-handedly in the course of a few short months invented and developed alternating and polyphase power including generators, motors, transformers, controllers and switching. Today, the politically correct "creator" is Westinghouse. Another first for Tesla was radio. I know the books give it to Marconi but Tesla won an immense patent fight over radio against Marconi. Before the turn of the century, Tesla was demonstrating radio controlled models of warships to the Navy Department. In fact, Marconi studied under Tesla for a while.

He also created extremely high voltage and high frequency equipment and appeared frequently on the lecture stages with his usual sartorial elegance ruined by the fact that his long hair was standing on end due to the immense static electric fields he had created. Reporters and other visitors to his lab on Green Street in New York were always astounded to find that he could throw a switch and the plaster ceiling would light up as if it were made of fluorescent lights invented 30 years later.

There were no bulbs mounted on the ceiling! He had induced the air itself to glow. He could also create, and hold in his hand the greatest electrical enigma of them all, ball lightning. The modern religion of science ignores him because he had few academic credentials and never kowtowed to the rote learning pedantic professional philosophers who considered him to be a crack-pot. After all they were the learned Ph.D.s and he was but a clever tinkerer, an uneducated piss-ant! Time has determined that they were the crack pots and piss-ants, not Tesla. They were wrong and as usual, he was right.

We now know that the Sun is very highly charged. The only thing still in doubt is the magnitude of both charge and voltage. I used to think, "*Wouldn't it be delightful if*

Ultimately I was disappointed in this when I discovered Mr. Bailey, a modern source, who claims that the Sun's charge is negative and 1.5×10^{28} esu. ¹ This value is 300 million times higher than Tesla's number. From the zero electrical charge at the turn of the century to Tesla's number and now to this fantasmagorical number, the Sun's charge is increasing faster than the age of the universe. Mr. Bailey also shows that this charge produces a field of -3.0×10^{17} volts at the distance of the Earth's orbit.

Because of this gargantuan charge, I can safely make the statement that each body in our solar system must be charged to some degree. An electric field is very pervasive and affects all matter. There are no electrically neutral materials! No matter the magnitude or polarity of this electric force, it must either reduce or increase the Sun's alleged gravitational force on the bodies of the solar system.

Even if the Earth were at zero charge, there must still be attraction between Sun and planet. The experts worry about electric forces on molecules, atoms and the so-called basic particles, but will never mention these forces when speaking on a planetary or cosmic scale. After all isn't a planet or a star only a collection of atoms?

However, if we limit our consideration to the majority of the stars which should be identical in charge we can see that they would indeed repulse one another. This would account for the observations that show the universe to be expanding. It would also account for those few which move counter to the general trend. As you are about to discover, these bodies would be respond to the attraction found when two bodies are not charged with the same polarity and identical voltage.

This is much more believable than the Big Bang scenario that starts out with a black hole, from which even light can't escape, and then it explodes driving out mere matter to form our universe. And don't bother to tell me that the start wasn't a black hole because what else can you call something that envelopes all the mass of the universe in a tiny volume.

To top that off there is no real evidence that black holes actually exist despite the tout job done by the astro-physicist in general and Stephen Hawkins in particular. Their existence has been predicated on two things, the first is Newtonian gravity and the second is Einstein's Relativity. Later we will examine Relativity and I will drive great wedges of doubt into your EBS on that mathematical spectacle.

In time, I came to believe that electrical forces control the mechanics of the solar system and universe and that they are also responsible for revolution, rotation and axial tilt of the various planets and the motions of the moons. Were the only force that of attraction of mass for mass, the planets who bear ring fragments would demonstrate chaos in their orbits instead of the sedate minuet that the space probes reported. I keep good company! HAB, Tesla, and Faraday also believe in an electric universe.

Both Velikovsky and HAB maintained that collisions between solar system bodies are very rare, because as each approached the other, both bodies would tend to develop an equal charge because both would then be at equal distance from the Sun. As the

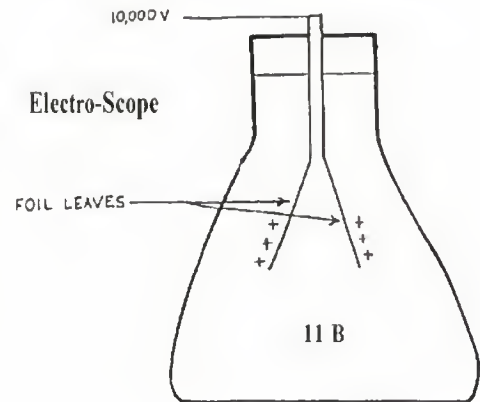
matter what the theorist claims, I know that closer atoms do not necessarily decrease the resistance. So much for theory!

I also believe that electric forces will one day explain the puzzling phenomena of the ringed planets. The moonlets, fragments and ring dust, by virtue of being equally charged, will be found to behave similar to small pieces of paper that can dance on and off the top sphere of an electro-static generator as they charge and discharge.

There are many ways for a body to become electrically charged but there are only two ways for a charged body to transmit the charge. The first is by conduction which is the process by which an uncharged body receives an identical and equal charge by direct contact with the charged body. The second is by induction which happens when an uncharged body is brought into the presence of a charged body. The uncharged body then picks up an opposite polarity of charge. I see an anomaly here that prevents me from predicting what type of charge the planets will have.

My confusion is explained by these examples. If I connect by wire, or touch the two bodies, this is conduction. If I put a resistor in series from one to the other I should find that this is still conduction, but the second body would have a lesser charge. However, if there is a gap between the two bodies an inductive charge will be placed on the second body and this charge, according to the books, will be of opposite polarity. But is not air also a conductor? Is not a vacuum also a conductor? Both to a lesser degree than a wire, to be sure, but how can the polarity change in the manner so found? I believe that these examples point to the need for a better explanation of charging by electro-static forces.

I shall pause here to quote Coulomb's law of electro-static attraction and repulsion. *"If both charges have the same sign, the force is repulsive. If the two charges have opposite signs, the force is attractive."* This statement was derived from the action exhibited by an instrument called a gold leaf electro-scope.



This device consists of a glass jar, which prevents air currents from disturbing the two fine gold foil leaves contained within. These leaves are connected in parallel to a conductor which extends from the top of the jar. When a charge is placed on the device, regardless of its polarity, the leaves will always repel each other. Contrary to the official explanation this instrument proves only that identical charges repel.

I had been perplexed for years over the problems of polarity and transmission of electric forces in the solar system. If I assumed that the Sun charged the planets by induction each planet would have an opposite but lesser charge. This was good because it provided

was bad. If I assumed that the planets charged by conduction, both the planets and the moons would be repelled. This was even worse!

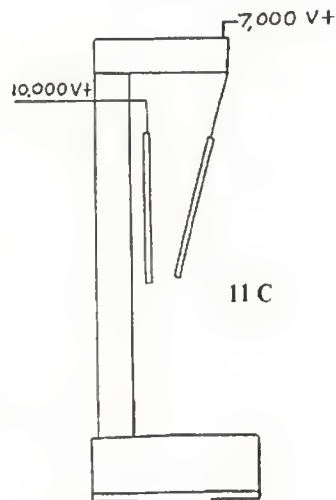
Time after time I re-examined these concepts and over the years, my sick mind had wondered what would be the result of placing a similar polarity but a different potential on two electrically isolated adjacent plates. What would these plates do? But each time this madness entered my head I would immediately reject it because it was contrary to the "LAW."

Time after time I walked away defeated. Then one day, my perverted mind saw a ray of hope. Suppose electricity had never heard of Coulomb or read the physics books. Suppose, contrary to man's idea of the "LAW", electricity saw any lesser quantity as negative to itself and attracted instead of repelled.

On Sunday afternoon (May 17, 1987) my buddy John Cook examined my sketch of two charged hypothetical plates and pronounced my theory viable. Before that day died I had slapped together the first René Two Leaf Electro-Scope.

A first test of this device took place on May 28, 1987 in Professor Lary Wasserman's Physics lab located in the Passaic County Community College in Paterson, NJ. He provided the two different voltage electro-static generators that were necessary to provide the same polarity but a different voltage to the separate plates.

When tested, the plates attracted each other thus proving that every Physics book in the world needs revision. This discovery in basic electro-static forces, which is being ignored and resisted means that the statement in all the Physics books should be revised to read, "Only charges that have the same polarity and are equal in charge repel. All other charges attract." Physicists, rewrite the goddamn books!



René Electro-Scope

I do not believe that the electro-static forces between the Sun and the planets can ever be repulsive because my Two Leaf Electro-Scope proves that only identical charges can repel. Unless there is magic, there is no possible mechanism that could charge all the planetary objects the same as that incredible electric furnace we call the Sun. Therefore there must be some attraction produced by the differential in voltage and charge. This electro-static force must modify by some degree that tether force which we call gravity. Is this so hard to believe?

Coulomb's law clearly states that the electrical force is dependent on the product of the charges. If this is true then there can be no such thing as a zero charge because zero times any quantity is still zero. The philosophers tell us that electrical forces are many

found to be 2.13 E 39 times higher.

This ratio is indecent! It is similar to comparing the mass of a drop of water to that of a million Suns. Coulomb claimed that the gravitational forces were negligible in comparison to the puny electric forces he had available and yet ... any suggestion that electric forces act on celestial bodies has always been met with howls of rage from subsequent philosophers.

A few months after I tested my Two Leaf Electro-Scope the "Herald News", a local North New Jersey paper, did an interview and photo session. Then they declined to print the story because the editor didn't think that the probable negation of Coulomb's Law was newsworthy.

During this period a great "what if" of self-doubt struck. What if the electro-static generators I used were giving out different polarity? Professor Wasserman had retired from his position the same day we had run the experiment and although I had been assured that all those electro-static generators have the same polarity I wanted to repeat the experiment just to be sure. This time I would assess each generator's polarity beforehand.

Exercising futility once again, I called over 25 Physics professors at the various local colleges. My experiment needed a lousy half hour but they seemed to believe that I was lying about the one very positive test I made. So sure were they that I was wasting their precious time that they would not even call Professor Wasserman. Their EBS told them that the physics book had to be right.

The general response to my requests was typified by the following direct and phonetic quote from one erudite local college professor type philosopher, "Book never long- book allays light!" The irony of it all is that one of the assholes from the National Science Foundation advised me to have local professors judge my work. To this day no one has acknowledged testing one of my two leaf electro-scopes. However, one bitter enemy must have because he arrogantly told me, "*Your electro-scope would work but we physicists speak of charge, while you speak of voltage.*" I still haven't figured out what he meant.

We have seen that phase and lunar distance are strangely related. Now picture how the charge on a moon must vary as it orbits its primary. At some short period during the first and last quarter when it is the same distance from the Sun as the planet it orbits, it must have an identical charge as the planet. At that time it must be actively repelled by the planet until the charge is no longer identical. This has never been taken into account by celestial mathematicians nor even discussed.

In each system the basic acquired charge would be different according to the planet's distance from the Sun. Would that not cause the Kepler numbers of the various moons into a different range for each system such as my computations showed?

I also believe that electric forces will one day explain the puzzling phenomena of the ringed planets. The moonlets, fragments and ring dust, by virtue of being charged equally

that can dance on and off the top sphere of an electro-static generator as they charge and discharge.

In January of 1991, Dr. Richard Cyert, President of one of the colleges of Carnegie-Mellon University promised me that he would have my Two Leaf Electro-Scope tested and re-examined. In a letter to him I predicted that the academics would do no more than pooh-pooh and tut-tut the instrument. The following May, I received a letter from him that stated: *"I cannot interest anyone in our electrical engineering department on the matter of your electro-scope. You are correct in your assumption that it has been 'pooh-poohed' into oblivion. I can do nothing further on the matter."*

I would have hand delivered a Two Leaf Electro-Scope to Pittsburgh had anyone been willing to test it. They could have knocked a cheap and dirty one up in a few minutes from a couple of sticks and some aluminum foil had they desired. Isn't it strange that no one would test? Or did they, when no one was looking?

It gets worse. In the Fall of '91 I conducted a contest for students at MIT. The prize was \$ 200 if they could prove my "Unproof" wrong. They gave it a gallant attempt. As part of the contest package I mailed each of them a collapsible René Two Leaf Electro-Scope made out of popsicle sticks, foil and a paper clip. I asked them to test it in their physics lab. Every student wrote back that if they got caught trying something like that they feared they would be thrown out of school.

There are some really bright kids who are great physics students up at MIT and as far as I'm concerned that school doesn't deserve them. As a consolation prize I sent them a copy of "Mensa Lectures" and a few wrote that if they were caught reading extraneous material like my book they feared for their school career. It seems science is also enmeshed in Political Correctness. You can't tell me that one so-called government "intelligence" agency or another hasn't covertly put the fear of the devil of non-conformity into these kids.

I suspect that future research will show space to be a much better conductor than is now assumed. I also believe that the electric constant for space, currently given as unity, will be ultimately found to decrease as to the distance from the Sun. This is because the solar wind must attenuate as it radiates outward.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

RENÉ'S ELECTRIC GRAVITY

Shortly after I first tested the René Two Leaf Electro-scope I had a series of connected thoughts. Given that the Sun is highly charged, and there is no longer any doubt that this is true, would not the outer most layer of the Earth's atmosphere be charged? Would not each particle of that mono-molecular layer have the same identical charge and repel all other particles in that layer? Would the forces from each particle cancel out the way Newton assumed that the particles would cancel out the attraction of gravity? If so, wouldn't this place a compressive pressure on the next lower layer? And each subsequent layer after that?

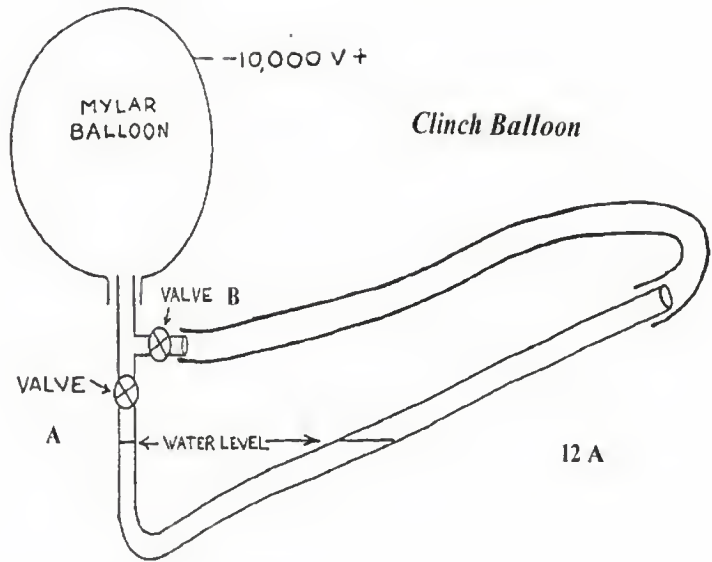
I thought up an experiment to test the premise but before we proceed I wish to reiterate some facts:

1. Electrical forces, similar to the so-called gravitational forces, are also diminished as to the square of the distances involved.
2. Gravity, which is reputed to attract all the other mass anywhere in the universe, depends for its propagation on the completely elusive and never detected Gravity Wave.
3. Electricity, on the other hand, is not quite so magic a force and we know much about its behavior. The fact is that all matter, even dielectrics, are affected by an electrical field. Bear in mind that although we measure electricity from the ground plane of the Earth and call it zero, we have no idea of the actual value or the polarity of our reference plane.
4. The immense solar charge has been found to be negative polarity, therefore Earth's charge must also be negative although of a lesser charge. My electro-scope proves that some of the attractive force which tethers planet to sun must be electric.

The actual densities of the inner planets are probably much less than are now supposed. I no longer see any difficulty in electric forces supplying most or even all of the attraction necessary to keep the planets tethered to their orbits. I gratefully leave the final solution of all these problems to the next Newton.

I can think of no way to test the Newtonian assumption of mono-molecular cancellation of gravity but we can test for mono-molecular electro-static cancellation with the following experiment.

Suppose we take a mylar party balloon and attach to its mouth a tubing T. Sealed to the outlet with shut off valves is the lower end of a very sensitive inclined manometer. We shut off valve A, disconnect the tube from the T and open valve B. The tube is then used to fill the balloon. When filled we shut valve B and replace the flexible tube. Then we open both valves slowly and simultaneously to keep an equal pressure on both ends of the manometer so that the level of the liquid will not surge.

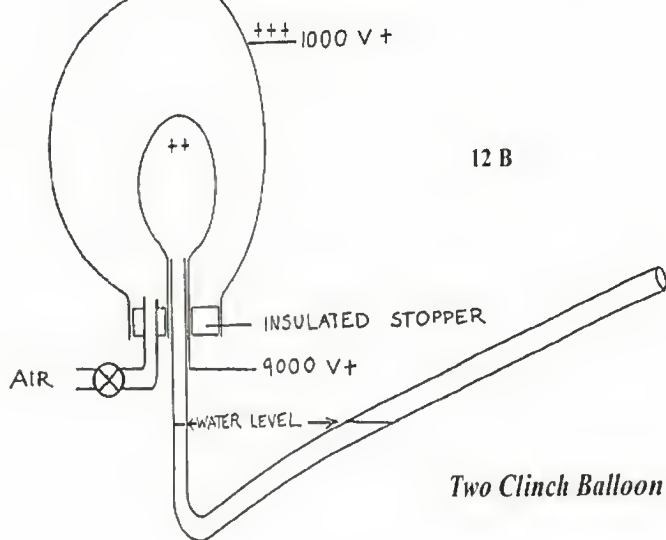


Then we shut valve A again and connect the surface of the balloon to an electro-static generator. The skin must acquire a charge. Will the electrical stress cause the skin to compress and thereby increase the static pressure inside the balloon? Will it instead expand the skin, decreasing the internal pressure? I believe that each charged particle being of identical polarity and equal voltage will repel the other thereby increasing the internal pressure. Only if the skin does not respond to the electrical stress can Newton's theory of gravity remain unchanged.

If the skin contracts, could not this molecular pressure be construed as gravity? Picture mono-molecular layer after layer contracting and each adding slightly to the pressure on the masses involved. Dr. Brush during his 1923 vacuum tube drop test experiments, while self-admittedly teetering on the edge of experimental error, found that denser objects accelerate faster and conductors more slowly. This shows that conductors have a slightly different gravitational potential than non-conductors. Why should this happen if no component of gravity is electrical?

Suppose we add another larger balloon over the first set up. All we need this time is one inlet valve. We fill the inner balloon with air and then pour water into the manometer. Then we blow just enough air into the outer balloon to raise the manometer a tiny bit. We seal off valve A. We attach one electrical connection to each balloon, the inner one through the stopper and the outer one to the skin.

We charge the inner balloon and record the rise in the manometer level. Then we charge the outer balloon and see if there is an additional rise in the manometer.



If I am right there would be another pressure increase noted on the manometer. If this happens we can now see each successive layer adding a bit more pressure not only on the entrapped air but also an increasing electrical pressure to each atom. Could this increasing electrical pressure be the force that we call gravity and currently ascribe to the magical property of mass to attract each and every other particle of mass?

This experiment is simple and cheap because you can build an inclined manometer but it does require access to a physics lab for the electro-static generators. The experiment has never been performed because after failing to get any one to re-test the Rene' Two Leaf Electro-scope I was not stupid enough to try to get lab time for this. I have no doubt that today's philosophers will talk this simple experiment to death but, just like their peers in the ancient fable, no one will go into the barn and actually count the damn cow's teeth!

It has been many years since I paid any attention to the statements of the particle-philosophers. About the time they "discovered" the hundredth basic particle, I abandoned all hope. When they ran out of decent names and began to attach names and properties to them like Love, Strangeness, Bottomness, Charm etc. my credulity was stretched to the limit. However, no matter what they are discovering, think they are discovering or are lying about, is of no great moment compared to the fact that all of their experimentation is done by using intense magnetic and static electric fields. If "basic" particles respond to these forces and if celestial bodies are composed of basic particles, why is it that any hint that celestial bodies may respond to the same forces is always met with derision by "open-minded" experts?

How accurate can the results be of any experiment that uses high electric charges as do cyclotrons and bevatrons and all the other "trons" if our basic understanding of Coulomb's "Law" is flawed? How can you tell us that basic particles wink in and out of existence when you don't even know if they are attracting or repelling during that incredibly small slice of time when you claim to have observed them?

I would love to be able to say that on November 2, 1987, that I was hard at work examining Einstein's Relativity and that by virtue of incredible impeccable intellect, considerable cogitation, splatters of sweat, and loads of logic I discovered a defect in his theory. But the simple truth is that I was gabbing with a girl buddy, doodling on a pad, listening to the radio and scratching an itch, when a bell went off in my crazed and demented mind. I saw a way to place Relativity on the sharp and spiraled horns of a dilemma.

Special Relativity

The theory fabricated in 1905 by Einstein utilized the Lorentz-Fitzgerald equations to denote that velocity affects an object's shape, mass and even the rate of its time. After Michelson & Morley failed to detect the ether by measuring the velocity of light, Lorentz and Fitzgerald created their transformations to show that relativistic effects could have distorted the apparatus just enough to account for that failure.

Einstein applied this series of mathematical assumptions to a hypothesis called Special Relativity. This states that the length of an object shortens, its mass increases, and its rate of time slows as the object gains velocity. What I have never seen discussed is what is supposed to happen to the width and height of an object. These phenomena are alledged to be exponentially proportional to the velocity, which means that the mass of an object approaches infinity at the speed of light. Each of these phenomena is determined by some relationship to the formula called Gamma.

$$\frac{1}{\sqrt{1-(v^2/c^2)}}$$

Einstein slipped Special Relativity to us. Eleven years later, in 1916, he boggled the world again with ... General Relativity. We were hit with the old one-two punch and neither our poor old Newtonian world, nor our universe, would ever be the same again.

Like many others, as a kid I was a science fiction fan despite the fact that I could visualize the incredible distances between stars. Such distances are so vast, that if man was ever to attain practical star travel, his ships would have to exceed the speed of light. Also they would have to do this without gaining infinite mass because this, in turn, would require infinite power. Without such capability, presumably man would forever be virtual prisoners in this solar system!

If we discount the deranged particle philosophers, who babble on about basic particles, there is no valid proof for either of Einstein's theories. Despite this, today's astronomy, astro-physics, and cosmology are all based on the assumption that Relativity is a natural "LAW" ... not just a theory!

The fact is that Special Relativity was 66 years old when an attempt to prove time dilation was made. It started on October 4, 1971, when four atomic clocks were loaded as freight aboard a series of commercial air liners. ¹

The experiment was conducted to measure the difference in time due to the rotation of the

necessarily involved zig-zag flight patterns, transfers of the equipment from one craft to another, and layovers all along the way. Just as many passengers today, the atomic clocks spent large periods of time waiting for the next flight.

Four clocks were deemed necessary, since atomic clocks are subject to time rate changes that can approach 1000 nano seconds per day. The philosophers figured that by doing statistical manipulations to all four of these clocks they could get a handle on the unpredictable rate shifts. The expected difference in time due to the effects from relativity were minus 40 nano seconds for the eastward trip and plus 275 nano seconds for the westward trip. In desperation, just to prove Special Relativity, they had the nerve to use clocks whose error rate was 25 times greater than the expected loss of time on the eastward trip.

The experiment lasted over 12 days. And in the end the philosophers involved, of course, proved that Einstein was right. Naturally they allowed for the stopovers, possible positions, plausible courses, likely winds, apparent speeds, and the probable delays; and then ... the predicted rate of time using Special Relativity was found to match the observed. When they had finished the interpolations, extrapolations, and least squaring of the deviations the match was almost perfect and the Theory of Special Relativity became another "LAW" of nature.

I could spend a few hundred hours in additional nit-picking, but I have conjured up a much better test for Special Relativity. It's a fairly simple test, and I'm surprised that the professional philosophers have never thought of it.

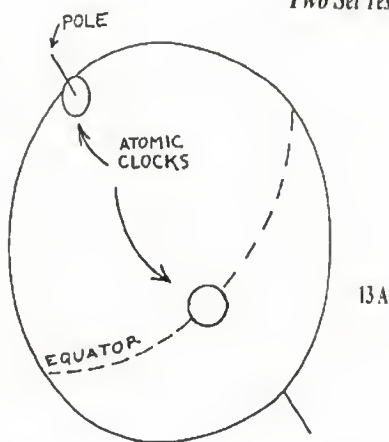
What I propose is simply placing two accurate clocks, one earthbound at the pole and the other on a satellite that is in geo-synchronous orbit above the equator. This will provide us with two relatively stable platforms of known relative velocity due to the Earth's rotation. The satellite's 26,000 miles of altitude plus the 3800 miles of Earth's radius would demand a relative velocity

about 7800 mph (2.1666 m/sec).² By monitoring the clocks for a year (not possible on interrupted airplane flights) our philosophers will be able

to determine if the Lorentz-Fitzgerald transformations hold true. If time dilation truly exists within that year, without any finagle factors or intermittent airplane rides, there will be a time difference of .00214 seconds. This experiment will give us, for the first time, a bold hold on Relativity. They will be able to either verify relativistic time or declare it to be ... Bullshit.

But let us assume that this experiment proves that time dilation is a reality. We could then collect and record data throughout the year, and in due time would have an array of

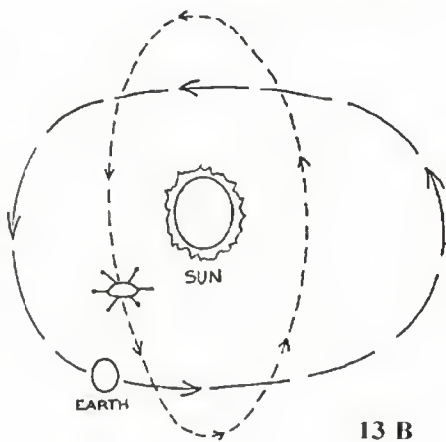
Two Set Test



the year. At certain times it's orbit must be going somewhat in the direction of the Sun and 6 months later it must be going somewhat away from the Sun's path. By comparing the time changes we will know the Sun's vectorial velocity in relation to the Equatorial plane.

Three Set Test

We could then launch a solar satellite at right angles to our solar plane, and set this probe to orbit the Sun at the same distance of the Earth and with the same period. In this manner, both solar orbital motions would cancel each other out. That probe should carry a cluster of atomic clocks which would then record only the Sun's travel. By comparing the data from the orbiting clocks with our polar clocks, we should be able to determine both the direction and velocity of our Sun, unless its motions is at right angles to our solar plane.



13 B

However, if all this be found true, then Special Relativity has been placed on the horns of a Special Dilemma. Einstein based his theory of special relativity on two postulates (assumptions). The first postulate is that *"Absolute uniform motion cannot be detected."* Thus, we have a theory that, if it can be shown to work, will prove that its own first postulate is invalid.

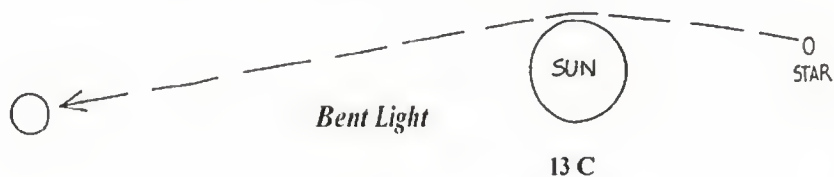
Einstein's second postulate for Special Relativity is that the speed of light is constant and independent of the velocity of its source. This assumption is one of the basic tenets of today's organized science. It is classed as gospel even though — to the best of my knowledge — no one, no where, no how ever seriously tested this assumption ... if it could be tested.

It was originally claimed that light is an electro-magnetic entity and that all the electro-magnetic frequencies were propagated at the same velocity, the speed of light! If you question this you are told that Clark Maxwell proved it mathematically, and that Michelson/Morley proved it when they measured the speed of light in the late 1800s. Obviously, what a mathematician proves, or does not prove, has never been of much great consequence to me. To again paraphrase Josiah Gibbs, a physicist must be at least half sane, but there are no restrictions on a mathematician.

The Michelson experiments recorded only the average speed of light over a number of trials. The distance was necessarily always less than one hundred miles. The only evidence pertaining to the long distance velocity of electro-magnetic waves comes from our deep space probes. One of these left the solar system a few years ago and NASA noted a drop in the frequencies of transmission. NASA also had to change the frequencies by which they communicated with the Voyager probe that toured all the outer planets. Did the first ship accelerate from an unknown cause as it left our system? Is the consis-

The General Theory fabricated by Einstein in 1916, has only one postulate, which is the equivalence of mass. It predicts that mass will bend light, retard time, and that all planets will have a precession of perihelion.

I find it intriguing that general relativity was "proved" before special relativity. To test his theory, Einstein had exhorted astronomers to test for the bending of light from stars that were very "close" to the Sun, but visible only during a solar eclipse.



His theory predicted that light from such stars would be bent 1.7 seconds of arc at this time. ³ During the solar eclipse of 1919, Eddington sallied forth to take the necessary photos during a solar eclipse. Actually, when the plates were examined, Eddington threw half away because they did not agree with the prediction. Then he averaged the rest of his observations, and announced (in headlines around the world) that mass attracts the massless photon thus 'proving' Einstein's Theory. In Einstein's book, "Relativity" the rectangular coordinates of the bending of only seven of the stars used were listed. ⁴ He also listed the corrected values derived from his theory for these stars. Paper is cheap, so why he never listed the data for all the stars is beyond my ken. Maybe he was lazy.

Trusting no professional philosopher, I did my own arithmetic on the seven samples provided. I found that the average movement for the calculated motions was .508 seconds of arc. I took the square root of the sum of the squares of the two coordinates, added them and divided by 7.

Eddington's Eclipse Stars

Star #	1st Co-ord	2nd Co-ord	Deviation
1	.22	.02	.221
2	.31	.43	.530
3	.10	.74	.746
4	.12	.87	.878
5	.04	.40	.402
6	.09	.32	.332
7	.85	.09	.854

			3.963

Average = $3.963 / 7 = .566$ seconds of arc

Despite Eddington casting out those bad plate devils, and despite all the mathematical machinations, these figures are still a long way from the predicted 1.7 seconds of arc. Of course, he never listed all the data so I have no way of knowing if the rest of the stars showed bending much greater to compensate for these. In any event Einstein, genius, savant and saint declared, "*The results of the measurements confirmed the theory in a thoroughly satisfactory manner.*"⁵

In 1919 the only person who knew that the Sun had a photosphere was Tesla. Professional philosophers didn't believe it. Although every professional astronomer knows that all atmospheres bend light by refraction they conveniently forget this fact under the magic spell of Relativity!

To the best of my knowledge no one has ever applied corrections for refractions on Eddington's data, nor on any of the other nine separate attempts made in the last 70 years by astronomers to prove Relativity by roughly the same method. Every attempt failed, but all of them did show a bending of the light. It seems to me that what they are measuring is the refraction of the Sun's photosphere.

The gravitational red shift predicted by Einstein is supposed to affect time and would be reflected in a 2 millionths shift in the wavelength of light from the Sun. Einstein himself, in 1920, declared that "*If the displacement of spectral lines towards the red by the gravitational potential does not exist, then the general theory of relativity will be untenable.*"⁷ By 1924 an astronomer allegedly detected the effect, not on our own Sun which is but 8 light-minutes away, but on the dwarf star companion of Sirius which is many light years away.

To this day the only planet that has a detectable precession of perihelion in its orbit is Mercury. Newton used this to prove his gravity of attraction. Einstein used it to prove the gravity of the space/time continuum. Naturally Einstein's "space time" bending of gravity supposedly negates Newtonian gravity.

General relativity is based upon the assumption of the equivalence of mass which means that all mass falls at the same rate in the same gravitational field. This assumption was what I was questioning when I requested a grant from the National Science Foundation to re-test falling objects. Starting with Dr. Brush in 1923, many of our more astute philosophers have found that this assumption is simply not true. They are then labeled (crack pots) which effectively prevents having to deal mentally or physically with their reports.

Some current philosophers are finally responding to these anomalous effects. They were beginning to add Tycho Brahe type "epicycles" to Newton's gravity by postulating a fifth (and even a sixth) force. I think they have quit, but one never knows, do one? Recent experiments with floating balls in water and using hoops of aluminum and bismuth have already shown that the equivalence of mass is an erroneous assumption. What can now be said of General Relativity, with its one and only postulate threatened with destruction.

If a man predicates a theory on two postulates, one of which is self defeating and the other unproven; and then he subsequently creates another theory based on yet another erroneous assumption, we should be very careful in calling his work "LAWS" and even

uncertainty to absolutely determine what's certain.

Milton Monson, *a theoretical physicist — by coupling the fact that velocity is equal to distance divided by time, and by using Einstein's Relativity formulas that respectively deal with the shrinking of objects due to their velocity and the time dilation at that speed — has reduced the "Theory" of Relativity to a complete absurdity. He arithmetically proves that the velocity of a photon would be zero in a space ship that was moving at the speed of light. No one would see a flashlight aimed toward the front of the ship.

Gamma, the basic Relativity equation, is listed here:

$$G = \frac{1}{\sqrt{1 - (V^2 / C^2)}}$$

When the velocity is equal to the speed of light, we get:

$$G = \frac{1}{\sqrt{1 - (3E+8)^2 / (3E+8)^2}} = \frac{1}{\sqrt{1 - 1}} = \frac{1}{\sqrt{0}}$$

If you consider the square root of zero to be infinity, then G equals one divided by the largest number imaginable which is zero. Therefore, the distance traveled by the photon is zero meters; and the time of travel is zero seconds. Since the velocity is distance divided by time, we have:

$$V = \frac{0 \text{ meters}}{0 \text{ seconds}} = 0 \text{ meters per second}$$

We have the bizarre condition that the velocity of a beam light emitted by a flash light, already moving at the speed of light, is not moving at all.

If a velocity of ...

0 meters per second is not ...

ABSURD ...

the word has no meaning!

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

1. p. 166, "AROUND THE WORLD ATOMIC CLOCKS ...", Science-Vol. 177, Hafele, July 14 1972
2. Using Gama we find the orbiting second to be the reciprocal of $1 - \text{the square root of } ((2.166 * 2.166) / (186000 * 186000))$ or .99999999932195 sec
the polar clocks records in a year $3600 * 24 * 365.25 = 31,557,600.00000000$ sec
the time differential times the seconds in a year gives us 31,557,599.99786024
subtracting smaller from larger gives total time change = .002139 sec
3. p. 127, "RELATIVITY THE SPECIAL AND GENERAL THEORY", Einstein, Bonanza, 1961
4. p. 129, Ibid.
5. p. 128, Ibid.
6. p. 674, "MYSTERIOUS UNIVERSE: A Handbook Of Astronomical Anomalies, Corliss, The Sourcebook Project, 1979, Extracted from "The Einstein Shift - An Unsettled Problem", Schneidler, Sky & Telescope, 27:217, p. 217, 1964
7. p. 127, "RELATIVITY THE SPECIAL AND GENERAL THEORY", Einstein, Bonanza, 1961

In 1929, Hubble discovered that the light from distant galaxies was usually shifted toward the red in proportion to the distance of that galaxy: the greater the distance, the greater the shift. He conceived Hubble's Law which states that the velocity of recession (V) of stars and galaxies is given by the formula $V = H * D$, where H is equal to the Hubble constant and D is the distance.

Over the last 60 years, each time a larger telescope showed us a larger universe, his constant (H) has been decreased. This was necessary to avoid the conclusion that some galaxies were exceeding the speed of light. This continuous reduction resulted in a constant that is now about 10% of its original value and it's still shrinking. ¹ I find it to be incredible that despite this amount of shrinkage, Hubble's "LAW" is still considered as valid.

Before Hubble could create this law he had to make a number of postulates:

1. That the speed of light is constant no matter the distance of travel.
2. That each galaxy contains the same proportion of stars of different color.
3. That Einstein's gravitational red shift either does not exist, or is so minute as to play no real part in these affairs.
4. That the red shift is entirely due to the Doppler effect of that galaxy's relative velocity.

If we examine these postulates, or assumptions, one by one we find that the first is still unproven and unprovable. The second assumption seems very reasonable, for why shouldn't a just and merciful God in a uniformitarian and benevolent, democratic universe create all galaxies to be equal. The third assumption is strange because Einstein in his book claimed that Hubble proved General Relativity by finding the Red shift. Either way this is another unprovable assumption. It is interesting to note that, despite this, most philosophers still believe in both Hubble and Einstein.



The fourth assumption is also unprovable. We are told that the red shift is related only to the speed of recession, and that both this shift and the density of the universe is the same in all directions. Not too long ago we were told that this expanding universe can be represented by a balloon that has dots marked on the skin, and that galactic separation is demonstrated by the movement of dot away from dot as the balloon is blown up. This is

a rather poor analogy because our universe is volumetric and the rubber of a balloon is only a thin skin. And of course a painted dot on a balloon would also expand as the balloon is inflated. Since I made this statement in 1989 they now use a raising lump of bread dough with raisins in it for their example. However, for this example to have value they must admit that space is the ether of antiquity!

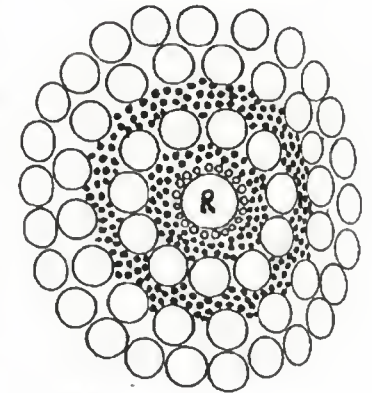
If we accept either analogy then the only position of observation that would satisfy both equi-directiveness of red shift and equal density in every direction is that we must be located, despite the philosophers denial, at the very center of the universe, wherever that may be.

I have invented a mental experiment which will help demonstrate this. We start with a number of small steel spheres similar to large ball bearings. The center one will be painted red and be hollowed out to contain a radio receiver, a detonating circuit and a blasting cap. Around this central ball let us place a thin concentric layer of a primary detonating explosive and then surround this with a layer of high explosive.

Now we glue on a layer of blue bearings and plaster them in place with another layer of explosives. We continue this process for a number of layers, each of a different color and each plastered in with high explosives until it is as big as a basketball. If we take the unit into outer space and detonate it, we would find that the outer layer of ball bearings have the fastest velocity, and each subsequent inner layer less.

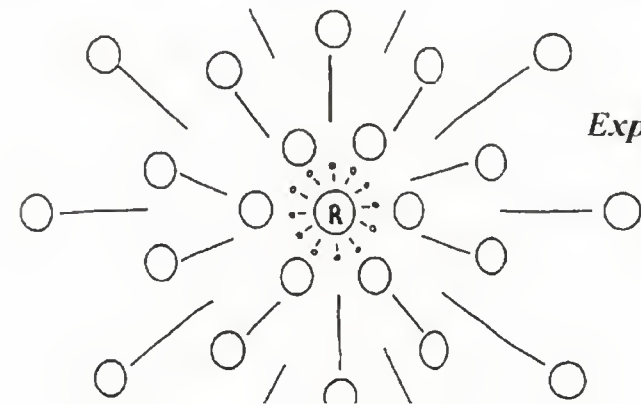
Only to an observer stationed on the red center ball would the direction of observation show that all the balls were moving away, and that those with the fastest velocity of recession were the farthest away. Therefore, for all practical intent and purpose of Hubble's assumption, we must be at the privileged center of the exploding — oops,

Layered Balls



14 B

Exploding Balls



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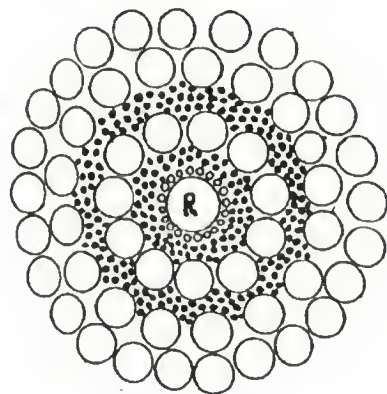
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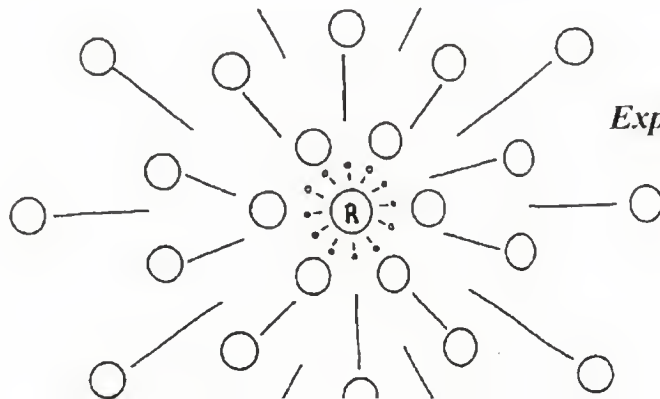
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14 B

Exploding Balls



expanding — universe. Whether it is the space/time continuum or the stars that are expanding we must still be at the center.

A few hundred years ago the philosophers began to laugh at people who believed in an Earth-centered universe. But now, I feel that our philosophers have led us in a big circle right back to where they had us over four hundred years ago. If the universe is as our current crop of philosophers believe it to be, then the universe really does revolve around our solar system. As the Howard Cosell of science would say, (No offense Howard) *“Out there are bill-li-uns and bill-li-uns of stars”* and if these figures are correct then the odds, as incredible as it seems, are just as many billions to one against this occurrence. But what the Hell! The center has to be somewhere, and here is just as good a place as any.

With the “facts” as currently presented by the philosophers there is no other rational conclusion possible. However, if the speed of light should decrease by only a millimeter per second for each thousand light years traveled, then Hubble’s “LAW” and all our present precious theories of Cosmology are down the drain.

The philosophers claim that is unscientific to propose a theory which can not be proved by experiment. Well I submit to you that all theories that are derived from the belief that the velocity of light is constant are then unscientific. I state again for the record, Michelson & Morley never even attempted to prove that the velocity of light is constant. That is an assumption. What they did was to measure its velocity.

A fellow Mensan sent me a copy of a small chart that listed a few nebulae, with their distances in millions of light years and their Red Shift in Km/Sec. My perverted mind thought it saw a pattern. Indeed, there had to be a pattern if the person who drew up the chart multiplied correctly. I divided the distance into the shift, and Lo, there was a pattern! It produced a constant which I call the René number.

René’s Numbers

Cluster	Distance	km/s	René Numbers
Virgo	78	1,200	15.384
Ursa Major	1,000	15,000	15.000
Corona Borealis	1,400	22,000	15.714
Bootes	2,500	39,000	15.600
Hydra	3,960	61,000	15.404
			<hr/>
			77.102

Average $77.102 / 5 = 15.42$

By averaging them I created the René constant that says that the speed of light diminishes almost 15.5 km per second per million light years of travel. From this constant I derived René’s Law of Tired Light. In simple terms my “law” states that the distance of any galaxy, in millions of light years, equals the René constant (RK) divided by the Red Shift

only the space/time continuum (what ever the hell that means) which is expanding and thus carrying with it relatively passive galaxies. Hence, it's not the stars themselves that are moving away from the Big Bang.

The distance between two atoms in a solid is only about 2 Angstroms. A decrease in velocity of 15.5 km per million light years would give us a shift in wave length over a hundred mile test path of 2.62×10^{-13} Angstroms. If we bounce a laser beam off the Moon our test path would be about 500,000 miles, which would give us a shift of only 6.13×10^{-18} Angstroms. Do you really believe that we can detect differences this tiny ?

My law needs no such assumption and deals only with each galaxy's basic distance. My constant is derived from the simplest possible interpretation of the same data and my constant is as valid as Hubble's. My constant denies that the universe is expanding which negates the Big Bang, ubiquitous Black Holes, quasars, pulsars and all the other weird and wonderfully imaginative celestial objects that our astro-philosophers talk of.

As far as a Red Shift, one does not have to scan the limits of space to find a brilliant example of one. Every day of your life the rising and setting sun exhibits a red shift. We were on a trip last year when I finally noticed that the rising sun was red. Later that day I also noticed that the setting sun was red. I don't mean the sky I mean the sun itself. Then it dawned on me that the sun is always red when it is low on the horizon. In fact, the lower it is the redder it is, whether it is rising or setting. No matter the season, the humidity, the temperature, or the latitude, a low sun is always red.

Conversely a high sun is normally white/yellow. The only thing that seems to make a difference is the length of the atmospheric path that the light must travel. If you want to believe that the humidity of the path is always constant and is filtering out the white/yellow that's your choice. I believe that the speed of the light is simply being slowed down by the length of the atmospheric path.

I was never able to accept the Big Bang. I now find that there are some famous philosophers who are coming to the same conclusions. One of them is a Swedish Nobel Laureate Hannes Alfvén, who sees the universe as one where plasmas are driven more by electricity than gravity. He is also at war with the mathematicians who construct mathematical models based on mathematical manipulations instead of on theories resulting from experiments. I sent him a letter telling him about my two leaf electro-scope and the assumption of the constancy of the velocity of light. However, he never responded. None of them ever do.

The next question, yet to be answered by science, pertains to the velocity of transmission of the different frequencies of light. The philosophers tell us that light is just another frequency in the electro-magnetic spectrum. Radio waves of different frequencies seem to travel at different velocities, and the various particles travel at different velocities and frequencies. But they make a special case for light.

During the Super Nova of 1987, the different types of radiation arrived at different times. If memory serves me, some of it was delayed up to two weeks after the nova was first seen. After 20 years of speculation it has now been confirmed that the gamma rays

Light and radio waves travel at c only in a vacuum. In a medium they go more slowly, which is the cause of refraction. Thin as it is, the ionized interstellar gas slows radio waves and also disperses them, lower frequencies having slower speeds." ²

From my original book I asked the question, do the different frequencies of light have the same velocity in the same media. I believed that simple question was one of the most penetrating of this century.

A few years ago the newspapers flipped out because a young scientist had found a different value for the speed of sound in air. I immediately suspected that he had only used a different frequency! Later I would find that the higher the frequency, the faster sound travels in air. ³

As another example, the epicenter of an earthquake is located by the difference in time that is recorded by two different frequency waves generated by a quake. One wave is assumed to make a longer trip through a different material (the molten core). But perhaps they simply travel at different speeds. It may even be possible to test the lower frequency radio waves against those in the mid-range. It is my understanding that the speed of transmission of electricity in a conductor is also less than that of light. Can this be an indication of a trend? The lower the frequency, the lower the speed of transmission?

Until such testing is done, the constancy of the velocity of light remains in doubt. It was not provable at the turn of the century, it is not provable today, nor will it be, I feel, by the turn of this century. However, much can be learned if my question proves positive on the slower waves. Recently I found out that the velocity of Telluric (Earth) waves does vary according to their frequency. The effect is known as dispersion. For over 30 years NASA has also had problems with variations in the velocities of both radio and light in space.

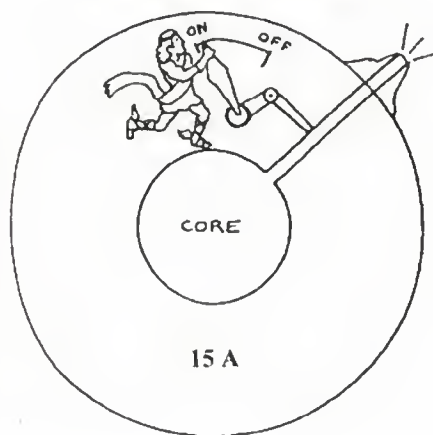
Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

Newton, in his infinite wisdom, decreed that the Earth had a very high density. It is simply not considered scientific to doubt Newton, so in order to satisfy this requirement our geo-philosophers compelled us to believe that Earth's central core is composed of a 1500 mile diameter ball of high temperature iron or nickle-iron combination. This core is surrounded by a thousand mile thick jacket composed of high density liquid rock called magma. Our "solid" earth surface is in turn floating on a 175 mile thick crust, composed of relatively light rock. All of these assumptions are unproven. Yet, they have been piled one on top of one another like layers of the very rock they supposedly represent.

Before the atomic age started we were told that Earth's internal heat was caused by the compression associated with the Earth's creation. As each bit of mass attracted the other the heat from thermal collisions caused our Earth to become a molten sphere, which slowly congealed as this heat bled off into space. Since the advent of nuclear fission they now tell us that the magma is kept liquid by the heat from fission of certain radioactive materials inherent in the original material.

Other philosophers also tell us that the Earth is over 4.5 billion years old. If I divide the depth of our 175 mile thick crust by this amount of time, I find that the crust must have solidified at an average rate of .002 inches per year. With the solidification rate this low I can confidently state that our mantle must be in a very precarious thermal balance. A slightly higher rate of radioactive decay would result in a molten planet and a slight decrease would have resulted in a solid planet. I can only conclude that a very gentle and loving god controls the Earth's radioactive heat valve just so.

God On The Valve



With the advent of plate tectonics we are told that the magma is also slowly boiling. Although this roiling has been going on for 5 billion years the magma remains in a non-homogenous state. It is this lack of homogeneity that allegedly evidences itself by helping to physically change our rate of rotation year by year.

The geo-philosophers claim that this slow boiling, or turnover, as hotter matter rises and cooler stuff sinks, causes the continental plates to move. In moving, the continents stretch, tear, or climb on top of each other. Where plate meets plate one section is thrust up as mountains, while the other is thrust down (subducted), back into the magma as in the oceanic trenches. These actions are caused by the spreading of the continents in other zones where the magma is being forced to ooze out of the top of the mantle. They then claim that all the stretching zones are located under the oceans because the mantle is thinner there. Why the crust is thinner under the oceans where there is more convective cooling and accordingly where faster solidification should take place, is never quite explained.¹

address the simplest and most basic problem in geology. How does our 175 mile thick pile of common rock support itself? We know by testing that the crushing resistance of granite (a very strong rock) is about 20,000 psi. If our concept of gravity is not erroneous, then a column of this rock only 3.5 miles high should crush itself. If our continents were instead composed of mild steel, anything over 3 miles would be unsafe. Limestone should crush out at a depth of 1 mile.

Crushing Strengths

Material	Crushing (psi)	Density (lb/ft ³)	Column Height (miles)
Limestone	5,500	150	1.0
Granite	20,000	150	3.5
Steel	60,000	550	3.0

I have had people tell me that the rocks withstand the pressures beyond their crushing strength because they are completely supported by the surrounding rock. A couple of years ago I put the question to a Mensa physicist, asking how a ball of limestone would fare in a hydraulic pressure chamber. His response was that the hydraulic fluid would exploit any cracks or defects in the limestone, causing the ball to shatter below 5500 PSI. Otherwise, the pressure would be uniformly distributed, and the ball would crush at 5500 PSI.

Again I ask, how does the crust support itself?

We have an inexplicable thinning of the crust under our oceans — an inexplicable lack of homogeneity in magma that has been boiling for billions of years. We also enjoy just the proper amount of radioactive heat being supplied to keep the crust from either melting or congealing, plus bedrock that doesn't crush no matter how heavy the load. Until some geological genius can resolve these anomalies I will remain skeptical of their theories.

Like HAB before me, I also believe that vulcanism is strictly a surface effect and has no connection with the internal magma which may or may not even exist. He led me to believe that vulcanism results from the passage of heavy electrical ground currents in the lower resistance volcanic regions. Or simply put, wherever there are heavy ground currents there is vulcanism of one type or another. I know that lava is melted rock, but the existence of heavy dense magma is still a completely unproven assumption.

Some volcanoes gently puke out their lava, while others literally blow their tops. Any geologist will tell you that the fairly common heavy hard rock known as trap rock is igneous, and therefore was formed by volcanic action. However, no one seems to be able to point to any known volcano that is presently producing such rock. Most, if not all, volcanoes produce lavas that are soft and of comparatively light density.

I sent letters to a few vulcanologists asking if they could tell me where trap rock, or other

comes out of the ground. This, of course, told me nothing. Being glass and painted by materials are found by every volcano, but not trap rock. Why not? Are our modern uniformitarian volcanoes different from their catastrophic ancestors?

Either volcanologists don't know the answer — or there are none! In my dictionary magma is defined as, ***"The molten matter under the earth's crust from which igneous rock is formed by cooling."***

I've watched bulldozers cut the volcanic rock in Iceland, and I've seen the roads in Hawaii being plowed clean by bulldozers, removing fresh lava after eruptions. But the quickest way I know to wreck a bulldozer, without using plastic explosives, is to try to cut into trap rock with it. Trap rock is very dense, mean stuff and even the dumbest operating engineer in the world knows that.

My big question about how such vast amounts of electrical currents could be generated was serendipitously answered during the International Geophysical Year of 1957. Unfortunately by then, our professional philosophers had already lost the ability to add one to one and consistently come up with two. They failed to see that if the oceans generally move west/east in relation to the planet's surface, then what we have is an immense conductor (salt water) moving past a magnetic field. For showing them that this would generate electricity, shouldn't I be allowed to call them Rene' Earth Currents?

By this simple and obvious method, a tremendous amount of low voltage direct current must be generated and flow into the Earth itself. The best candidates for the electrical junctions are the deep sea nodules of manganese and nickel that are found scattered on all ocean floors. Until very recently it was believed that these nodules took thousands of years to grow. However, deepsea divers in the Pacific have found large nodules that have formed on and around sunken World War Two military debris.

These nodules are the junctions where the ocean passes the electrical current into the Earth. Any time a current flows from one material into another, the junction formed at the point of contact acts as a breeding ground for certain materials. For example, in the case of aluminum house wiring, oxides of aluminum are created. These oxides increase the electrical resistance and allow heat to generate at the junction. If this heat build-up is trapped, sooner or later a fire will result. Improperly ventilated aluminum wiring was allowed to be used in houses because our legislator's common sense was overridden by the siren call of the aluminum industry's money.

There are also other phenomena that must be derived from these ocean-created electrical currents. In the Pacific there are underwater light flashes that help guide Polynesian sailors to the nearest land. They are called Te Lapa. These sailors, both modern and ancient, know that these



Other electrical phenomena include incredible phosphorescent marine displays in the Pacific Ocean.

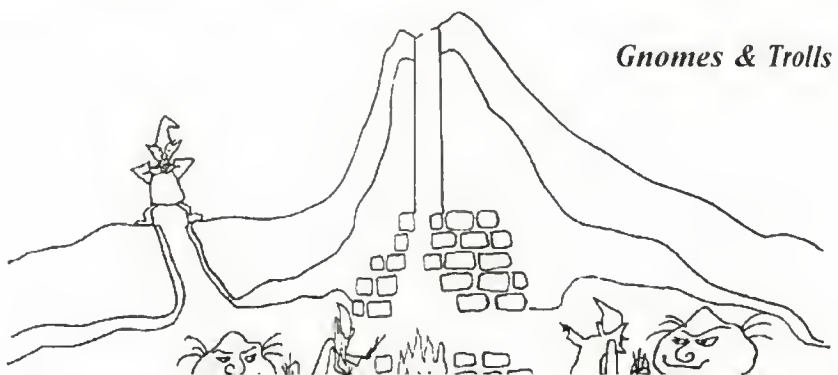
Our Earth must be both a generator of electricity and a motor. It uses some of this electricity to reinforce our feeble magnetic field, which must be initialized by the interaction of our electrically conductive atmosphere and the solar wind. The atmosphere must be under much greater electrical pressure than the oceans. I believe that lightning discharges relieve these excess charges.

When we look at a volcano what we are seeing is, in essence, the effect caused by the flow of an electrical current. The higher the current flow the greater the amount of heat. If that heat is not carried away as fast as it is being generated the temperature rises. Eventually this process will create a pool of lava. And once the rock is molten the electrical resistance drops. This causes an ever greater current flow which creates ever higher heats. I know from a previous experiment, where Pete and I accidentally created a miniature electric volcano, that molten compounds have a very low electrical resistance. Rock is a very good heat insulator, but if it's heated long enough, at some point all hell must break loose!

If there is running water in the area a great deal of that heat will be carried off, which results in hot springs. If water is entrapped it will create steam, and the temperature and pressure will continue to build. Geysers are the periodic venting of this steam pressure. Steam can only cool a furnace by escaping. If the rock being heated contains water of crystallization quantities of steam will again be the result.

A volcano can be compared to a high pressure boiler. The surrounding rock acts as a pressure vessel the same way as does the steel shell of a boiler. If the safety vent clogs and the furnace keeps firing, then the pressure will increase and a boiler, no matter what it is made of, will eventually be blown to smithereens. A steam boiler must use a high pressure pump to force water in against the operating pressure.

I can understand the initial explosion of a volcano, but how can an active volcano pump in the water against all that pressure the second time? Any water near this activity must be driven away by the pressure, not sucked in. It is beyond my imaginative powers to comprehend how that same volcano can explode time and time again after it has wrecked



the original containment chamber. Do nasty buggers like Rock Hounds rebuild the rock boiler, restock it with water and then with spiteful malice re-open the magma valves?

Some volcanic explosions are so powerful however, that I no longer believe they are caused by just steam. There are a number of reasons for this statement. If the geophilosophers are correct, in that magma rises in "pipes" to the volcanic chambers, then these previously melted materials can contain no water of crystallization, since this is the only way water can be fed into a volcano without the use of a high pressure pump. Only if the magma melted the walls of the volcano could any new water of crystallization be supplied to create new steam. But this process would also entail a heat exchange, which would tend to cool the magma below its solidification point and thereby plug the vent.

It could be argued that volcanoes create water by natural chemical processes, and I have little doubt that they do. I could even believe that they might transmute elements. Our ignorance of what happens at such heat and pressures is profound. However, no matter the water supply, steam cannot blow a mountain apart! The simple explanation for this is that there is a critical pressure beyond which steam cannot rise no matter how great the temperature. This pressure is 3,200 PSI. ²

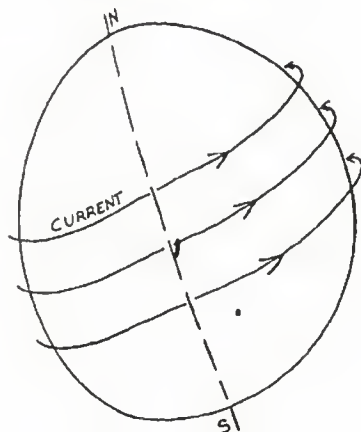
While 3,200 PSI is classed as a high pressure for a man made-boiler, it is minute as far as explosives pressures in general are concerned. When man fires a bullet or a shell, he uses slow burning gun powder to accelerate high density metal projectiles at gun chamber pressures that are ten times higher. In addition, a long barrel and slow burning powders provide a long duration directional impulse to the projectiles. These bullets or shells are also streamlined, elongated, and made to axially spin by rifling in the barrel for maximum range and flight stability. But a volcano can only use an instantaneous, omni-directional blast to propel jagged chunks of light density rock. How can this be?

We find a quote by Boschke, "*It is reported that debris was hurled eighteen miles into the sky and fragments of rock flew as far as one thousand miles away*". ³ The huge guns on battleships have a range of 25 miles, but even they cannot fire a shell 18 miles high into the sky.

There are unexplained static electric and magnetic phenomena associated with volcanoes which tell us, should we care to listen, that it is the Earth's electrical currents, not magically moving mountains of magma, that are the cause of vulcanism.

I also believe that the Earth's rotation and our magnetic field are irrevocably linked. The various explanations of the Earth's magnetic field have a long history. Sir William Gilbert, royally pronounced that the Earth itself was a permanent magnet. Newton declared that the

Right Hand Rule



must have a large core of solid iron. Later philosophers would melt that core, and then belatedly realize that there are no “hot” magnetic solids.

All magnetism disappears well below 1000° F. Until recently the iron oxides in the crust were held responsible for the Earth’s magnetic field. However, a new geo-philosopher has postulated that the center of the Earth is composed of a new iron-nickel alloy that has properties unlike anything we know about. For this material the Curie point is in the thousands of degrees. I propose that he call this imaginative alloy “Mustbee”!

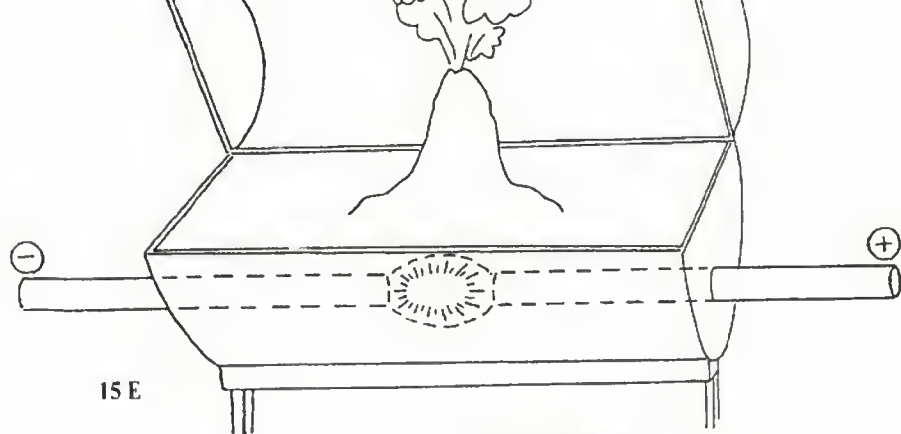
I have shown that the ocean flow must generate vast electrical currents. The only real question is how these Earth currents enhance our magnetic field. The answer is simple. It is generated and polarized by the right hand rule! The Earth currents flowing from west to east will create a magnetic field with (by convention) the north magnetic pole toward the north. But before you tell me that I am wrong or crazy, do please explain what happens to the electricity that our moving oceans must create.

At least some of the tremendous explosive power exhibited by volcanoes must come from some other source. I suspect that volcanoes powered by electricity, and involving high heats and pressures, may be creating some very strange compounds by transmutation of the elements lying within. I mentioned before that Pete Ross and I once accidentally made a baby volcano that burped lava the way an old fashioned coffee pot perks coffee. Peter, the genius, had told me that we could make a fortune by creating “Znortneys”. So I went out and bought the basic supplies and materials, while Pete fabricated our furnace (pot) from a 25 gallon steel drum. Common lime was our refractory lining and the heat source was an arc created by two large, 3 inch diameter graphite electrodes powered by a large electric arc welding machine.

The time was late December, 1977, and the place, an unheated warehouse in Fort Lee, NJ, just north of the George Washington Bridge which served as Peter’s shop/laboratory and playground. Despite the cold, we put in a few pounds of our secret material into the “pot” and turned on the power.

The gas and electricity to the building were both turned off, but Pete had somehow slipped the electric power past the dead meter seals. At that time I was still running continual fevers from my crippling arthritis and I was unable to cope with the cold. In fact, after our experiment began I found it expedient to drape myself over our hot “pot” just to stay warm.

The experiment had been running a few days when I arrived one night to find Pete very preoccupied. As I draped myself over the “pot”, I noticed that he had hooked into the power lines his “Lab Standard” meters. They were denoting a power consumption of only 240 watts. We were supposed to terminate the experiment that night but now his attention was riveted on the phenomenon of a very large arc being sustained by a very small power input. Yet, despite that low input the heat emission seemed to have remained in the range of a few thousand watts.



Baby Volcano

The following night when the real excitement started, I was at home with another fever. However a photographer, who was a mutual friend was present when our "pot" decided to grow a baby volcano. The cone was percolating hot viscous material in the same manner that a volcano vomits up lava. Becoming a little concerned at this unprecedented phenomenon, Pete lowered the power to slow the volcano's growth. However, this had no effect, so he poked the bubbling mound with a rod of tool steel, in order to knock it down. Bang! At least a half inch of the rod vaporized, and a tight beam of blue white light shot diagonally towards the roof.

Melting the end off a half inch steel rod usually takes a considerable amount of energy and time. Meanwhile, the volcano was still increasing its flow of "lava", so Pete switched the power completely off. Still, the volcano continued to grow. Thinking the switch defective, Pete physically ripped out the power leads. By this time the cone was a foot high and still growing, even though the power had been torn out! In desperation Pete succeeded in breaking open its walls, and threw in a new supply of the original material. We later came to believe that the volcano died because the new material shorted out internally self-generated electric currents.

The next morning I found Pete sorting through the contents of the "pot". We had successfully created "Znortneys"! That was the good news. The bad news was that the quantity was minute, the quality lousy and the commercial value was less than the cost of the power that would be consumed.

In poking through the contents we noticed tiny coppery nodules. This was strange because we had used no compound with any elements that exceeded atomic number 20. In fact, by testing with reagents, Peter also found a few other elements, including tin, in the batch. We cleaned up the mess and stored a few bottles of sample material away.

How were we to explain the excess of exothermic heat that had kept me warm at 240 watts that last night? Where did the heavier elements come from? What about that strange light? Each discussion lead back to the ... impossible! Had we somehow caused a transmutation of elements? The philosophers tell us that there are only two atomic

processes, fission and fusion, that can transmute elements. We had to discount fission because that requires heavy radioactive elements.

All we had left was sustained fusion, which was too preposterous to believe. Everyone knows that fusion without hydrogen and solar temperatures and pressures was ... Impossible! However, lacking any other logical explanation, we were left balanced us on the horns of a helluva dilemma. A Catch — 22!

Without a heavyweight professional philosopher to act as a witness no one would ever believe us, but ... to get that witness someone had to first believe us. To help us get a witness I designed a plan that would remove us from any possibility of fraud. We would give our witness a shopping list, let him purchase the less than \$ 20 worth of material wherever he could and then have him pack the empty “pot” himself. He could also bring a helper so that they could take turns while maintaining constant surveillance for the few days it took for the “pot” to cook. When the experiment was over the witnesses would be responsible for the gathering of samples and the testing thereof. If the witnesses were the only ones who touched the experiment, we couldn’t be accused of doping the pot.

I sent out dozens of letters over the years to no avail. Indeed, someplace along the line, I sent a letter to a Oreste Battista, “mad man of science”. He had earned this fabulous nickname by, if you can imagine this, becoming knowledgeable in more than one field of science. We began a back and forth phone thing that culminated in his agreement to test one of our samples. And we had agreed that if any elements higher than atomic number 20 were found, he would be our witness for a re-play of the experiment.

Boy, I was sure that I had finally succeeded. He tested the material and sent me a copy of the test. But then he reneged on his promise. I guess he thought we had doctored the samples. His list had elements on it right up to bismuth (At. No. 83) which is heavier than lead. It is also one of the last non-radioactive elements in the periodic table. Pete had always worried about our pot ultimately creating fissionable material. It seemed we had come very close.

Enter next a man who was big in the search for fusion, in fact he headed the effort in a mighty research institute. He had been featured in a newspaper story where he had stated that he no longer believed that fusion energy was possible. Sez I to myself, here is a disillusioned person. And since drowning people clutch at straws, maybe, just maybe, he might be willing to waste his time as a witness to a re-run. I fired off a letter and in due time I received his reply. He told me that he would send us some literature telling us how to build el-cheapo radiation detectors so that we could safely rerun the experiment without him. I needed a witness; I got an offer of schematics.

It has been over 20 years since that single experiment, and I was never able to obtain a witness. Pete, the genius, is dead. My illusions about the ideals of science also died, and I became a scientific skeptic. I have come to class most of the professional philosophers equal to royalty. My grandfather, an Italian anarchist and a farmer, had a saying about royalty, “*Nugio forgeta dey so fulla da shits, dey maka guda composto*”.

In my high school physics class I argued that our atmosphere could not be a mixture. It had to be a weak compound because the percentages of the constituent gasses did not significantly change, according to their densities, with an increase in elevation. Naturally, since that wasn't in the book, I was wrong. And after expressing that possibility I had nothing but trouble with the teacher.

Over a decade later NASA released full-colored pictures of the Earth taken from space. Separating the blackness of space from the Earth is a thin band of brilliant cobalt blue. I knew then that our atmosphere fluoresced, and I suspected that the cause was electrical energy from the Sun. I had no proof!

Thirty years passed and in October 1990, I was living in Matlacha, Florida. My (now ex-) wife and I were driving east down Pine Island Road toward Fort Myers when I looked at the unlimited horizon provided by that very flat state. And I saw, for the first time, something I had been looking at all my life.

I scanned as much of the horizon as I could from the van. Then, with a new insight, I pulled the van off the road. My ex-wife is an artist, gifted with a very fine eye for light and color. I asked her to scan the sky, in all directions, from horizon to zenith and describe the colors as she did. She saw what I saw, and what you can see too! The light blue of the sky at the horizon deepens with elevation and becomes a deep electric blue at the zenith.

A lifetime of watching the sky told me that this was true no matter the time of year, the geographical location or the position of the Sun. I was almost positive that I had discovered the reason why our sky is blue and that reason isn't because our atmosphere scatters the blue light. I also knew how Tesla had made his ceiling glow. In both cases the air is excited into fluorescence by high voltage electricity. Tesla's effect was probably from a Tesla coil feeding another coil wrapped around the ceiling of his room. Our sky's effect is from the intensive electric stimulation provided by the mind-boggling charge on that star we call the Sun.

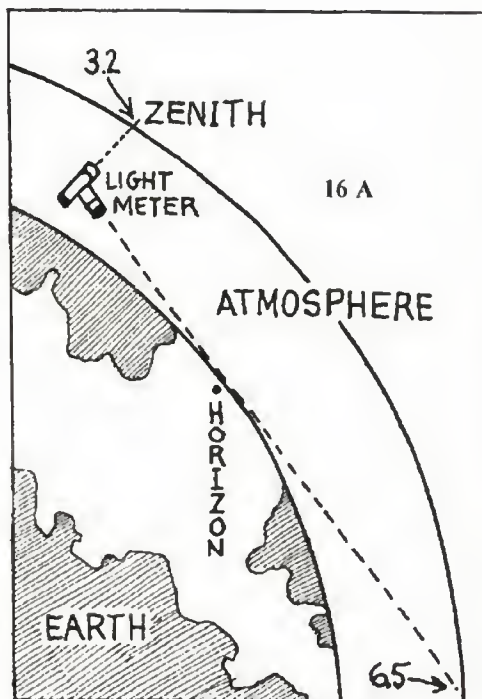
I resumed our drive, and then as I waited for her in a mall parking lot, I mulled over the problem of proof. I realized that if our sky was fluorescing, the longer the atmospheric path the more photons created. Conversely, the shorter the path, the fewer. This thought agreed with visual observation. When we look straight up our sight path is through an atmospheric tunnel that is only a hundred miles long. When we look toward the horizon we are looking through a much longer tunnel.

By the time we drove home I had figured out a way to prove my hypothesis. I needed to find a long forgotten camera light meter that was buried somewhere in our house. However, this instrument was on vacation. We tore up the house for two weeks trying to find it. It successfully evaded our collective clutches. Just as I began to seriously consider buying another meter at a second-hand camera store (which I couldn't afford), it went belly up, surrendering to my ex-wife.

ever, to accurately measure this I had to make the lens very directional. This problem was solved by using a black page snatched from our photo album, rolling it into a paper tube, and taping it around the lens. I checked the unit on the house walls. Convinced that it was very directional, I boldly went out into the cloudless Florida sunshine.

Sky Photons

I first aimed the tube at the zenith and noted that the meter registered 3.2. As I lowered the tube toward the horizon, it began to climb and registered 6.5 near the horizon. This occurred at any direction I chose to point it, which proved that the lower elevations emit four times as many photons as does the zenith.



If our atmosphere were composed of other gasses, or if Earth were located at some other distance from that electric generator that is our Sun, our sky might be yellow-green like Venus or the dull red of Mars. It might even have been pink like the Easter Bunny's eyes. But whatever the composition of gasses in a planet's atmosphere, they will glow. Is this why more light reaches the Venusian surface than was expected? This is contrary to what the physics books tell us about the scattering of light. Our atmosphere fluoresces in exactly the way that Tesla fluoresced the very air of his lab's ceiling all those years ago.

Four months later, we were driving north through Georgia nearing the border. It was Feb. 26, 1991, and there was less than a half hour to sunset. Bored with the road and covertly watching my wife catching a cat nap on the co-pilot's seat, I looked off to the right to see an almost full moon rising. It provided the distraction I needed after driving all day. I am always amazed at the size of the Moon as it clears the horizon. I can remember reading books by its light when I camped out as a kid.

I was wondering if it was as bright as I remembered, when a question formed! How could a chunk of gray-brown rock be so bright after a journey of almost a quarter of a million miles? Two weeks later we were back in Florida and I hit the library. An encyclopedia provided the information that the Sun's luminosity in space is 141,400 lux at right angles. That figure is reduced by 27 % coming through our atmosphere, which gives us 103,222 lux, again at right angles when it is at the zenith on a clear day. Since a lux equals .0929 foot candles, Earth's surface receives 9,589 foot candles of light on a clear day.

The reflectivity of a common mirror is 80 %. So let us imagine that we have a mirror

It would reflect 113,120 lux which would be reduced by the atmosphere to 82,577 lux. It would also be further reduced by the spreading of the beam.

If the Moon's surface was like a mirror then 113,120 lux would obviously be reflected. However, at the range of 1080 miles (one lunar radius) from the Moon the intensity would be reduced by half to 56,560 lux. Each time we double the distance, the light intensity reduces by 1/2 and at 138,240 miles from the Moon the reflected light would be down to 883 lux. At 233,280 miles (Earth distance) it is about 800 lux. After passing through our atmosphere it would then reduce to 584 lux or 54 foot candles.

However, obviously the moon is not a mirror. In 1976 the astronomers gave it an albedo (surface reflection) of .086 (roughly 8 %) which gives us a surface value of 12,160 lux. Since then it has been increased to 12 %. To avoid making the calculations again I will keep the old value. On its reflected trip to Earth, moonlight's final value would be reduced to about 62 lux after getting through our atmosphere. This is 5.7 foot candles.

At my request a photographer, Lee Kuersten, who works in Harmon's Photo in South Fort Myers, measured the moon's brightness using a 1 degree spot meter. This gave a reading of ASA 100 at F 5.6 at 1/100 of a second. I contacted Tom Bell, product specialist, at the Kodak information service in Rochester NY and he converted this to foot candles for me. It came to 800 ft. candles. This is the figure for a Moon with a mirrored surface — not one of gray-brown rock.

If we concede that the Moon's surface is dirty gray-brown rock and dust, divide these 800 foot candles by the 5.7 expected by calculation, then the Moon is 140 times too bright.

As comedian Red Buttons used to say, "*Strange things are happening!*" Since I can't believe that the Moon's surface is emitting photons, I feel that the Moon must have a very thin atmosphere that is fluorescing just like ours. Why didn't NASA tell us about this, after all they were supposed to have been there.

The evening of Dec. 16, 1994, differed from the typical Friday nights that come with being alone because just before I slipped into sleep, I devised yet another simple test for the equatorial bulge. Since it deals with the fluorescence of our sky I placed it in this section instead of with the other test for the bulge because here there are less pages to renumber and re-index.

Assume the Earth to be a perfect sphere. Then no matter where you are on the Earth's surface the distance to the horizon will be identical. Assume now that you have a telescope mounted on a portable stand and attached to that instrument is a very sensitive and highly directional light meter. The lens is always set to exactly the same height above sea level (a few meters). This should be done in a bay close enough to the water so that the center height of the lens can be directly measured

On a perfect sphere the decrease in photons entering the lens, will depend only on the angle of elevation and will not be sensitive to either the observing latitude nor the direction the telescope is aimed at. The photons along any equal elevation sight path should be

If there is an equatorial bulge, then the photons detected on any equal elevation path will be greatest on east/west shots and the lower the latitude the higher the photons. This is because an equatorial bulge would produce a horizontal sight path that is appreciably longer at the equator. I am going to leave the gory details to some younger mind.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

The International Geophysical Year (IGY) ended 35 years ago and to this day the philosophers, although in agreement that the polar caps are melting, are still in contention as to their age with estimates ranging from 7 to 100 million years. These estimates are the result of a great number of man-years spent in studying and applying the various politically correct scientific laws and theories. Yet, after all of that effort they seem to have made some hellacious errors, since their estimates disagree by two orders of magnitude. If the Antarctic cap is this old, what can we say about two early maps that show the continent free of ice? How old must they be?

I doubt very much that either of these maps are millions of years old. The same applies to any "legendary" sources. I find it hard to believe that any of our ancestors drifted downwind to Antarctica on log rafts, then using bongo drums as sonic sources they mapped this huge continent on sheep skins, while calmly wandering on the top of the two mile high ice cap. 'Tiz a puzzlement, especially because we weren't even human seven million years ago!

I prefer to believe that the Antarctic ice cap is much more modern, rather than believe that little green aliens, with purple polka-dots, handed a map over to early European mapmakers.

Both of these ancient maps are in basic agreement with the recently discovered topology that shows the mountain ranges and rivers. The oldest of these maps was owned by Piri Ibn Haji Memmed, a Turkish Admiral in the early 1500s, whom we call Piri Reis. For too many years experts, who seemingly have never even examined it, have denied the authenticity of this map. They also deny the obvious, in that it depicted Antarctica. To them the Piri Reis map is a fortunate figment of someone's imagination — but still a figment.



One of the problems is that the map's distortion of the continent doesn't conform to our standard map projections. All flat maps are distorted by the various projections used to force a spherical surface onto a flat plane required for a map. All such projections are latitude dependent.

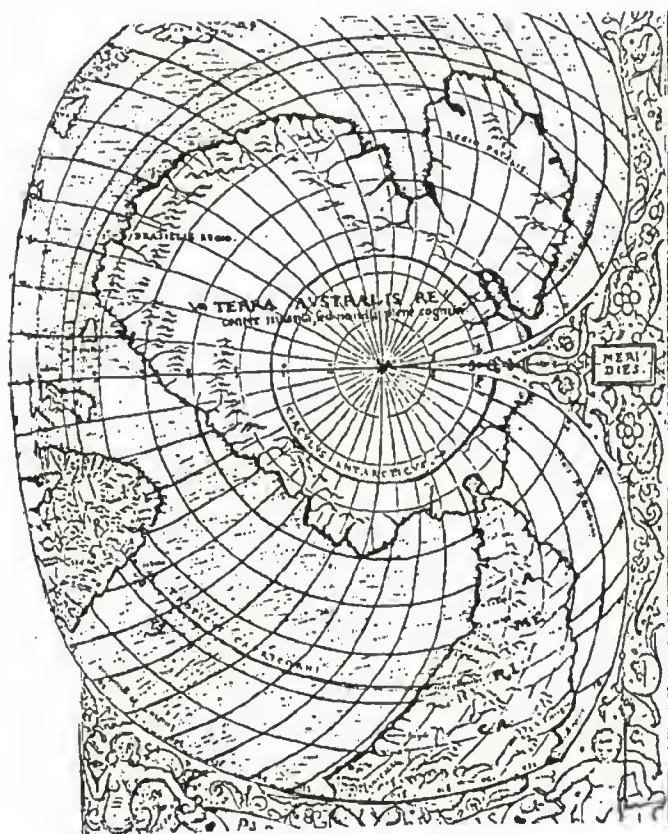
However, after the IGY's comprehensive effort showed the same mountain ranges and ancient rivers as the Piri Reis map, there was no longer any doubt. In fact, I believe that his map constitutes a pre-historical proof of a previous epoch before the last "Roll Over". Even if the continent were not ice-covered, our immediate ancestors could not have mapped this immense area, simply because the technology did not exist until almost three hundred years after the map was already in the hands of Piri Reis. I believe that at the time that the map was created, Antarctica was not located at the pole but at a different,

What is needed is an expert cartographer teamed up with a good computer programmer (please, not an enhancer). A computer could then be used to compare the Piri Reis map with the various possible computer projections of modern Antarctica, thereby determining the best fit for latitude and orientation at the time the original map was made.

If Antarctica was originally mapped at a location of different latitude, this would be considered proof that it was mapped before the last "Roll Over". It would also indicate that in pre-historic times man had attained a level of technology at least comparable to the 1600s of our present epoch. And obviously, it would also show that the technology had been lost when the civilization was smashed into oblivion during that "Roll-Over."

There is another map about which there can be little argument. This map was created by Ortonius Finneus in 1532 and it shows the location of the pole, the rim mountains, rivers and a continent that appears mostly ice free. Look at how the tip of S. America (bottom) comes so close. ¹

Finneous Map



17 B

Cartographers, by necessity, are the world's greatest copycats and this map was either copied from earlier charts that must date back thousands of years, or was delivered by malevolent aliens. I say malevolent, and I mean malevolent because if that was the case then the map is not as accurate as it should be. The pole is a little off, South America

angles in from the wrong longitude etc. And please remember that in the 1950s ships did not dare probe the high polar latitudes.

In 1961, Captain Burroughs, Chief of the United States Air Force Cartographic Section said, *"It is our opinion that the accuracy of the cartographic features shown in the Ortonius Finneus map suggests, beyond a doubt, that it also was compiled from accurate source maps of Antarctica."*²

What we are dealing with here is the historical fact that time and time again, technical knowledge and artifacts are lost for hundreds, or thousands of years or even epochs until they are re-discovered. The Wm. F. Corliss books contain an endless list of inexplicable artifacts, which have been dug up in one place or another only to be re-buried by the experts in basements and vaults in the museums of the world. An artifact that does not fit the modern scientist's EBS is usually casually hidden and quickly forgotten.

We were told in high school that trigonometry was invented by the Arabs in the early Middle Ages. But this skeptic believes that trig was simply redeveloped after it was lost for almost three thousand years. The ancient Chinese dug a 1000 mile long canal about a thousand years before Christ. Our experts would have us believe that this project was accomplished using sticks, stones, eyeball engineering, muscle and bone. Garbage!

The odds against haphazardly digging a thousand mile, water level ditch are astronomical. The engineering for the ancient Suez Canal was simple in comparison. You did know that our modern canal was re-created, didn't you? Here, since both ends of the canal were at sea level, a small test ditch dug between the Mediterranean and the Red Sea would have established a convenient water level bench mark for the whole job.

Before a canal can be successfully created there are certain vital pre-requisites. There must be a well developed geometry. It is not enough to know that the Earth is a sphere; one must also know the approximate diameter to determine the curvature. Very long survey lines require precision instruments (optical?) and Trig tables with at least five decimal accuracy. A feeding earthworm blindly digs a hole. Man, modern or ancient, does not do this.

Any expert who believes unlimited manpower, with poke and hope engineering, can create a 1,000 mile long functioning canal has never really looked out the window of his ivory tower at a construction site. Or if he has, he misinterprets the hurly-burly of a number of seemingly crude and stupid men aimlessly wandering by. In reality, construction uses highly trained people who follow very exacting and well planned directions.

How much mathematics were necessary to build an analog computer? Two Greek sponge divers in 1900 were salvaging a ship that had sunk in 65 BC off the island of Antikythera. They brought up a corroded bronze artifact that when examined was found to be a mechanism containing complex gear chains that predicted the motions of Sun, Moon and planets.³

After 20 years of laborious hand calculation Delauney, in 1860, published the most accurate prediction of the Moon's position. This was the author of "Newton's Clock" had this

There exists in Sacsayhuaman, Peru, an intricately carved monolithic stone pyramid. The thought that this single piece of monolithic stone was dragged over hill and dale from a distant quarry is mind boggling. But even more unbelievable is that this huge thing is now upside-down in the ground!

Surrounding this site are 60 foot high stone walls whose stones have been ground, one to the other, in situ. They are so precise that not even a knife blade can be inserted between them. One of these wall stones weighs 200,000 tons, and this four hundred million pound block of stone was apparently quarried over 200 miles away! Ruins such as this are found on every continent and are called ante-diluvian, meaning that they were built before the “mythical” flood. They are also referred to as cyclopean structures because a race of huge cyclops were thought to have erected them.

Tremendous stone structures are found on every continent and even on islands in the Pacific. On Ponape in Micronesia there is a stone city which has canals large enough to float a battleship. The city could have housed two million people, yet the stone is not native to the island. There are over ninety islands in the area, totaling eleven miles square built of cribbed basaltic slivers.⁵

On Malden and Raratonga we find basalt roads that lead into the sea. On Tonga-Tabu there are two 70 ton columns that are capped with a 25 ton cap stone.

The Titanic which weighed a mere 45,000 tons, slipped on the ways during construction and it took the shipbuilders, using modern derricks and hydraulic jacks, over a month to straighten out the problem. In 1979, behind the dam site at Abu Simbel, the Egyptians tried to move an 80 foot statue to a new location and found that modern equipment wasn't equal to the task. They left it to be submerged.

On the shores of Lake Titicaca there exists the lost city of Tiahuanaco. The lake is now 12,644 feet above sea level. Berlitz says it is *“too high for corn to grow, for cats to live, for white women to give birth, and certainly too high for a population large enough to have built and carved the enormous stones that comprise the city.”*⁶

A single Tiahuanacan stone is 36 feet long by 7 feet and weighs 170 tons.⁷ The city was originally on the lake, but the shoreline has since tilted from its old level as shown by old strand marks. Uniquely, the lake has fresh water sharks and sea horses in it. When the Inca's conquered the territory, the city had already been long abandoned. Both lake and city are above the tree line where very few domestic plants will grow. At that altitude grain plants, including corn, will not ripen. At the present time only potatoes and other root tubers grow there, and the region accordingly can only support a small population. Even if the world climate were warmer back then, nothing much would change because of the altitude. Altitude is synonymous with cold no matter the latitude. There are, after all, glaciers on the Equator at the present time.

If this city was built and populated at that altitude how did the people find food and fuel?

epochs?

Many pieces of exquisitely crafted ancient jewelry have baffled the experts for years. They simply could not understand how the known tools of antiquity could produce such quality.

In 3000 BC, the Egyptians already knew how to do exchange-electroplating to plate antimony on copper vessels. They placed antimony sulfide, "Kohl" in a solution of vinegar and salt in a container and then inserted the copper to be plated. ⁸

Almost 40 years ago I saw a color photo of a wooden box that had been found in Iraq and labeled "mysterious object". The boards had been coated and caulked with pitch and there were two wide green-blue slashes of color down one side. Not being a philosopher, I had no trouble in identifying this mysterious object. I had just built a quite similar one for a customer. It took the experts about ten more years before they decided that this was a plating tank and that the flask-shaped clay bottles found adjacent to the tank were batteries.

The objects, 2000 years old, had been discovered by a German archaeologist in a dig outside of Bagdad in 1937 and had been stored away all those years. The bottles each held an iron rod which was inside a copper cylinder. In 1957 an American scientist made an exact replica and poured in vinegar. The result was, of course, an electric battery. ⁹

These ancient peoples had known and used electricity. Today these artifacts reside in the Bagdad Museum (unless we blew it away during the "Desert Storm" using one of our smart bombs). How did the ancients create such fine jewelry? The same way we do, they used lenses and electro-plating!

The separation of aluminum from bauxite without electricity is a very difficult chemical process. But ancient aluminum trinkets have been found in China, and it even seems the ancient Greeks had a word for it. Chow Chu (265-316), a Chinese General, was buried with an alloy girdle that was composed of 85 % aluminum. Platinum has a very high melting temperature, impossible to attain today without a gas driven torch. But ancient platinum jewelry has been found in both Peru and the Middle East.

Man's favorite pastime, total war, probably accounts for some of the lost knowledge. Local natural catastrophe accounts for a good deal more. Yet when we find an object as weird as an up-side down monolithic step pyramid, then nothing makes sense. If one dared to offend today's scientific priesthood, then one could postulate that the quarrying and transportation of this monolithic monstrosity was accomplished by a people who could control gravity, or who had a higher technology than we do. If it wasn't intentionally constructed that way, the only other possibility is a natural catastrophe of astonishing proportions.

In 1988, a small wooden model was discovered at Saqqara in an Egyptian tomb, dated at about 200 BC. It was placed in a wooden box labeled "wooden bird models" and stored until Dr. Messiha discovered it was actually a

outline of a one-seater American plane that was a low speed, low-powered and high capacity aircraft. ¹⁰ Another coincidence?

Coal mines seem to produce a fairly reliable number of objects that organized science wishes would stay lost. The following are listed according to date of publication. A chunk of "green" Colorado coal was mined from a seam 300 feet from the surface. It contained a corroded iron thimble. ¹¹

A spoon was recovered intact from a piece of Pennsylvania bituminous coal. It was sent to the Smithsonian where not only was it severely poooh-pooohed, but the "experts" told the old ladies who found it not to waste their time. When they returned the spoon it was broken. ¹²

And there is the infamous Salsburg cube, a small cube of unknown metal with unknown writing on all six faces. It was pulled out of a coal mine a thousand feet beneath the ground, and now rests on a forgotten shelf in some museum.

Quarries are also high on the list as places where strange objects turn up after having been lost for millennia. Something as mundane as a nail can destroy one's belief in the orthodox. A block of sandstone removed from deep in a 20 year old quarry was found to have a rusty nail embedded in it. ¹³

Excavations also turn up objects that destroy our carefully contrived geological and paleontological time tables. Blasters in Dorchester recovered a broken bell-shaped metallic vessel about 4.5 inches high and 6.5 inches at the base. A beautifully formed silver floral bouquet was inlaid on it. The vessel had been embedded in rock found about 15 feet below the surface. ¹⁴

If you found the preceding items hard to believe you are about to have your mind totally wrecked. This is a necessary prerequisite for a truly open mind to develop. Over the ages a tremendous amount of evidence has been unearthed, literally, that shows that man has been on this planet in his modern form for millions of years. Either that, or our accepted paleontological time-table is totally erroneous.

The most publicized human fossil footprints are in the bedrock of the Paluxy River in Glen Rose, Texas. I have seen pictures of these tracks frozen in the rocks ages ago. The first thing your eye tracks are the 30 inch wide prints of a web-footed dinosaur who was apparently going about his business. But then you realize that the overlaid moose-in-elad feet were going about the business of stalking old web foot. To give scale to the picture the photographer placed a 12 inch ruler along side of the human's print.

The book also reported that as usual the Paleo-philosophers, who were much too busy to examine the site, had agreed, in absentia, that the tracks were fraudulent. Then, as now, they were absolutely sure that a hundred million years separated the first man from the last dinosaur. No one ever explained the fraud and the years rolled by.

Then a few years ago a group of fanatics, whose literal belief in the Bible caused them to

Stone!". A literal belief in the Bible would, of course, make man and the dinosaur contemporary neighbors.

Then Glen J. Kubon showed up according to John Noble Wilford, who reported the incident in the June 17, 1986 New York Times. Mr. Kubon, "an expert on dinosaur tracks" first found that the Paluxy River was real. Next Mr. Kubon discovered that the rocks were real and later that the web foot tracks cast in those whitish rocks were likewise real.

With the stage thus set for his greatest discovery, he proceeded to find that the "Manprints" (which showed separate left and right feet) were not what they seemed to be. They were really the tracks of a completely unknown three-toed, if flat-footed, dinosaur. They were made by a gay saurian, tip-toeing through the tulips, while leaving crystal clear heel marks cast in white rock and subliminal toe prints cast in rusty and blue gray rock!

The story gets better. At first Kubon's peers (other Paleontologists) refused to believe him, since he is a computer programmer by day and a student of weird tracks only by night. The philosophers were bothered by a few things like the different colored rock in the toe's prints, and and by the fact that no other flat-footed three-toed dinosaur, or bird, has ever been found.

Still Mr. Kubon persisted, and found completely logical and scientific reasons to explain away their fears. Some of the "human" tracks were made by the snouts and tails of other dinosaurs as they also strolled about. Nevermind the absence of their tracks, they were lightweights. The different coloring of the rocks around the toe marks was caused by the deposition of different material in the toe holes. This explanation thus made everything different and the philosophers have accepted this as current gospel. Even the religious fanatics, after being exposed to Kubon's devastating logic, agreed to withdraw the movie.

I prefer to believe that Kubon cut class the day contemporary mammal tracks were studied. Perhaps, if he were to wear a pair of moccasins in his back yard after a snow storm he would be shocked at how closely his foot prints resembled the original photos of the Paluxy Rocks.

There are old stone fortifications whose surfaces have been in part vitrified (turned to glass), as in a kiln, or as if they were at ground zero in an atomic bomb test. The process requires extreme heat. There's a tunnel in solid rock in Vail, Oregon (shaped like a Quonset hut) that is over 40 feet in height. It has vitrified walls and goes straight into a mountain. How far? Who knows? The Government sealed off the area the night it was discovered over 30 years ago. The picture was published in a now extinct newspaper, the "*Morning Call*" from Paterson, NJ.

What we are never told is that from all over the globe fossil tracks have been discovered and then discounted. As you read about them, remember that only a natural catastrophe can preserve such an ephemeral thing like a footprint. Also it's only "luck" that finds them. Let's start with the oldest reports and work our way up.

voyageurs.¹⁵ A few decades later, both human footprints and animal tracks were found under 20 feet of sand on the east bank of the Connecticut River near Hadley, Mass.¹⁶

Near a small town called Waneta in the old Dakota Territory close to the mouth of the Cheyenne River, there is a large exposed surface rock of magnesian-limestone which shows the human tracks of someone running.¹⁷ About the same time the bare footed tracks of a whole family were found in hard rock sandstone on the edge of a hundred foot cliff that overlooks the Harpeth River. The edge had eroded away one track until only half remains. This report predates 1882. By now the rest may have also eroded away.¹⁸

Tracks in sandstone are also found in the State Prison Quarry at Carson City, Nevada. The tracks are of a hominid and the rock is dated to the Pliocene. But before you could blink, the nay-sayers were at it absolutely proving, sight unseen, that the tracks were those of a ground sloth.¹⁹

In 1891, hundreds of human footprints were found in yellow limestone in a rocky glade near Irondale, Mo.²⁰ Footprints were also found pressed into volcanic ash in a dam site in Demirkopru, Turkey. They are believed to be 250,000 years old because geological study shows that the last volcanic activity in Turkey was that long ago.²¹

So much for footprints which are easily explained away. How about anomalous human skeletons? One would think that such evidence would be unassailable. But where there's a will there's a way. In 1873 a man personally extracted a bone fragment deeply incised with figures of animals from solid rock dating from the Miocene, 800 feet beneath the top of a cliff. The Miocene period ranged from 10 to 25 millions of years ago.²²

Here's another puzzlement: Human bones were found by rock hounds in strata, judged to be 100 million years old, after a mining company had stripped off 15 feet of overburden and at least 6 feet of solid rock in a desert in Utah. The bones were sent to the University of Utah for testing. But the experts never quite got around to testing them. The experts did the same with my electroscope. I predict that in another decade or so some expert will claim his Ph.D. on why these bones were phony.²³

Another human skull found in hard siliceous limestone near Lake Texcoco. Not another word was ever heard.²⁴ Around 1865 another human skull was removed from under 153 feet of five intermittent beds of volcanic ash and gravel.²⁵

After over 50 years of reports of miners finding human artifacts and bones an ivory tower expert finally admits that some of the gravel deposits are middle tertiary (25-40 million years old). However, since all these things were discovered by unwashed and unlettered blue collar workers, these "objects" probably all fell down from surface cracks to where they were found. Since only blue collar people work in mines, by these standards, there will never be any acceptable proof.²⁶

In 1929 the remnants of a mastodon were found 22 feet down under Stanford College at the same level that a human skull was previously found. The bones are thought to be two to three million years old, which would make the skull the same age.²⁷

mies.²⁸ Forty years later another vast graveyard containing pigmies was found in Coffee County, Tennessee. It was reportedly similar to those previously found in White County and other places in middle Tennessee.²⁹

Then 7 years later, near the junction of the Missouri and Hart Rivers in the frontier town of Mandan, a 100 acre cemetery was found which contained the bones of giants.³⁰ In 1885, outside of Gasterville, Pennsylvania, a mound covering a stone vault was opened and inside was a skeleton that measured 7 feet two inches. The stones which covered the vault were covered with inscriptions which have never been deciphered. The remains were sent to the hallowed Smithsonian, from whom never a word was heard.³¹

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

1. p. 90, "WE ARE NOT THE FIRST", Tomas, Bantam, 1971
2. p. 90, Ibid.
3. p. 452, "ANCIENT MAN: A Handbook Of Puzzling Artifacts", Corliss, The Sourcebook Project, 1979, Extracted from "Unwordly Mechanics", de Solla Price, Natural History, 71:, P. 8, March 1962
4. p. 216, "NEWTON'S CLOCK", Peterson, W.H. Freeman, 1993
5. p. 255, "ANCIENT MAN: A Handbook Of Puzzling Artifacts", Corliss, The Sourcebook Project, 1979, Extracted from "Prehistoric Structures On Ponape", Anon., Science, 5:, p. 284, 1885
6. p. 76, "MYSTERIES FROM FORGOTTEN WORLDS", Berlitz, Doubleday, 1972
7. p. 248, "ANCIENT MAN: A Handbook Of Puzzling Artifacts", Corliss, The Sourcebook Project, 1979, Extracted from "The Ancient Ruins Of Tiahuanacu", Anon., Pan American Union Bulletin, 37:, p. 513, 1913
8. p. 443, Ibid., Extracted from "Ancient Electroplating", Anon., Scientific American Publishing Co. Annual Log, p. 85, 1933
9. p. 453, Ibid.
Extracted from "Electric Batteries Of 2,000 Years Ago", Schalb, Science Digest, 41: April 1957

During the middle ages wisemen (philosophers) argued over the number of angels that could dance on the head of a pin. Although not one of these geniuses had ever seen an angel, the only logical parameter to the rhetorical discussion was that they assumed that angels were diminutive, to say the least, and that some finite number could minuet on the head of a common straight pin.

I find today's particle physicists and cosmologists have regressed and are similarly engaged. Ever since Einstein resolved Relativity, Hawking hustled black holes, and Heisenberg uttered uncertainty they have been hard at it — hyping new “angels”. As of April, 1971 there were 17 stable basic particles in addition to the electron, the proton and the neutron. There were also 66 mesons and 44 baryons for a grand total of 130 basic particles. ¹ There was no mention of fermions, leptons or quarks. I couldn't be bothered running down today's totals, but I would bet that this already phenomenal number has been greatly increased in the intervening decades.

When last I heard the particle physicists and their associated mathematicians, had been working their magic in ten dimensions. Today they have expanded their consciousness to enable them to envision 26 dimensions simultaneously. That's 22 more than us unenlightened common folks can see. Only the first three dimensions can be demonstrated. However, we can increase the number to four if we agree to accept “time” as a dimension. Time is unique in that it is the only one of the three that doesn't require active participation to use. Whether you are watching it or not it passes. It is with these 22 extra, folded-in dimensions with which these magicians now work their wonders. Is it any wonder that Dr. Peter S. Ruchman's book on Einstein, “ $E = MC^2$ ” is subtitled “*The Bigger the Belfry, The More Room for the Bats*”.

Unless these philosophers are lying, I must believe they have deluded themselves into thinking their mathematical constructs are real. This delusion is circular. Once the four dimension barrier is breached, the greater the hallucination, the more dimensions there are to be found. I can categorically state that if they actually approached any of these 22 dimensions with their pen and pencil weapons unholstered, they would not only meet all the fiends in hell but also all the multi-dimensional people-eating monsters of fable. That's my story and I'm sticking to it!

By some subtle, exotic and arcane mathematical reasoning they have also decided that the proton is stable. So stable, in fact that proton decay is a matter of a million trillion trillion years. ² To test this belief over the years they have taken to habitating the lowest levels of old mine shafts just like rock trolls of yesteryear. There they have buried a number of huge water tanks using the rock on top to protect the tanks against most cosmic rays. Most of these tanks are filled with triple distilled water, with embedded and surrounding appropriate detectors. Because of the immense number of atoms (protons) in each tank, they predicted that around 1000 protons, per tank per year, would be subject to decay. ³ But, after decades of searching, they have failed to find a single verified case of proton decay.

Of course they may also be waiting for a quark internal to some proton to cause it to

decay. They claim this happens when an X particle leaps into existence, changes the quark, and then vanishes. ⁴ I think the quark changes back, but they didn't say and I am not sure. Note, these are the same breed of birds who disparaged Hoyle's steady state universe because it required the birth of a single simple atom of new material per cubic meter per billion years. ⁵ Is an X particle that comes and goes any more believable than the birth of a single hydrogen atom?

This same quark which apparently has failed to decay a single proton in a single underground tank for almost 20 years is the same strange beast that has a "strong force" for other quarks. When this behavior is found in people they correctly label that person a "prevert". However, they tell us that quarks are attracted by a strong force which grows exponentially stronger the greater the distance grows between them.

If this attraction were true then the Strong Force would equal some constant times distance to an Nth power or $SF = k * D^n$.

In this case the quarks would drag the protons, which would drag the atoms, which would be dragging matter together instead of allowing the universe to expand as we are told. At the very least, the expansion of the universe would be slowing down and we would know that the universe was closed, and not open. Oops! I know! The strong force terminates at some very short distance.

Talk about epicycles! These people are frightening. They are not the half sane physicists that Joshua Gibbs chided but certifiable mathematical lunatics. They work as hand-maidens to the cosmologists who daily drag us deeper into the pit of irrational temptation.

The following is a blunt statement from David Lindley who in his book, *"The End Of Physics"* writes, ***"Modern cosmology theories are built on ideas that have no proven validity, if one insists on the old-fashioned standard of empirical evidence."*** ⁶

Between the particle loons and the cosmologists they have created the theory of "Supersymmetry" which doubles the already unbelievable number of basic particles in one shot. They now claim that each particle has a very massive (comparatively speaking) partner. They believe this even though after six decades of atom smashing not a single super particle has turned up. ⁷ So now they're saying that these particles are inherently undetectable! Wow!

These super particles are collectively known as "Sparticles". Each partner particle gets an "S" in front of its name such as selectron, sneutron and snutrino. When the "S" won't phonetically work such as in the word sphoton, they add an "ino" to the end producing such words as photino and gluino.

David Lindley closes his book with this statement, ***"The theory of everything will be, in precise terms, a myth. A myth is a story that makes sense within its own terms, offers explanations for everything we can see around us, but can be neither tested nor disproved. A myth is an explanation that everyone agrees on because it is convenient to agree on it, not because its truth can be demonstrated. This theory of everything, this myth, will indeed spell the end of physics."***

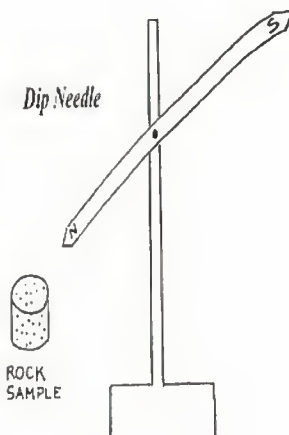
Thank God that our legislators finally smellinoed the sroses and skilled the Supercolliderino.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

1. p. F-236, "HANDBOOK OF CHEMISTRY & PHYSICS", 54TH edition, CRC Press
2. p. 165, "THE END OF PHYSICS", Lindley, 1993, Basic Books

Paleo-magnetism is the branch of geology that deals with the residual magnetic orientation of rocks whose magnetic orientation was aligned as the volcanic lavas of that epoch solidified into rock. We shall start by investigating the evidence of magnetic pole reversal. I can not deny the evidence, for it is literally written in stone. But I do absolutely refute the current conclusions that insist that the poles reverse polarity by purely electromagnetic methods.

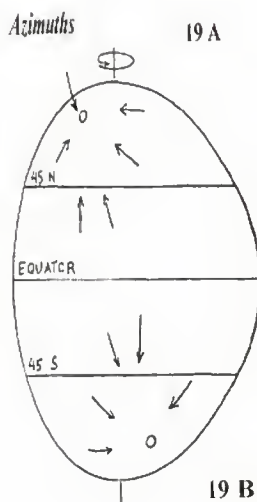
The geo-philosophers believe that the magnetic poles occasionally change their polarity by some mysterious method and in a non-catastrophic manner. Our professional philosophers believe in a uniformitarian universe where a cataclysm such as a planetary "Roll-Over" is unthinkable. However, their **EBS** allows them to use dip needles on the rock samples to prove this contention.



They use a rotary core drill to take samples and split off a layer to be tested. They mark the top and then use a dip needle to determine the polarity of the era in that location when the rock solidified. By their standards this test absolutely proves that the field itself reverses. However, this test would show similar results if the poles physically shifted.

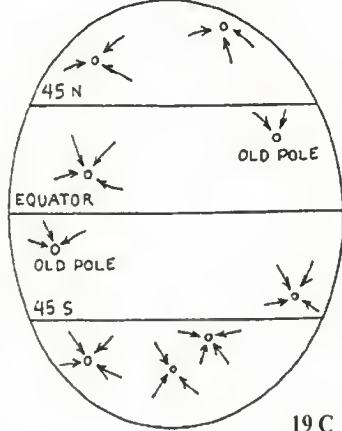
Believing that they have proven their original contention they determine the age of the samples and then they draw a chart of the Earth's magnetic reversals.

A few years ago, I thought I had worked out a way to make the samples tell the whole story. Instead of a dip needle I would use a sensitive magnetic compass, and determine the azimuth of magnetic north or south of each sample. I would choose only samples taken between the latitudes of 45 north to 45 south.



The reason for this is that the magnetic poles and the poles of rotation are never coincident nor diametrically opposed. Since a magnetic pole may be thousands of miles from the true pole, and even discounting local variation, the orientation of samples taken within 45 degrees from a true pole may indicate a pole reversal.

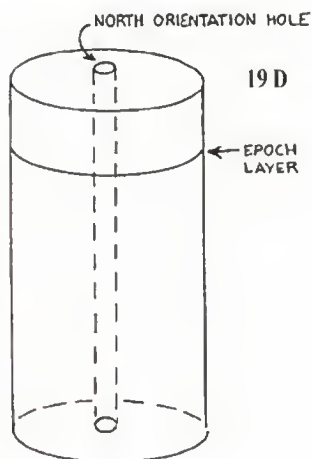
can only use samples from the midline latitudes where the variation is always less than 45 degrees. If the magnetic poles electrically reverse, then azimuths taken to the nearest pole from these samples will seldom show any east or west orientation. The greatest majority will always be within 45 degrees of either pole. However, if the poles themselves shift by "Roll-Over", then azimuths will be random.



In need of actual core samples, I hid myself to the the Lamont-Douherty Observatory in Palisade, NY where I was graciously offered the use of data. I then discovered that their cored samples were not oriented before removal. Amazingly, to the best of my knowledge, no one had ever tried to orient the samples by this method.

Core Samples

We need new samples which must first be carefully marked for true north before they are cored. To do this it might be desirable to pre-drill a small hole on the exact northern edge of where the sample core edge will be. In addition, then each sample split off from the core need only be marked with a magic marker to indicate the top. Before they are tested for polarity each sample should always be shimmed up so that the layers are level because all sediment is laid down in horizontal layers.



The geo-philosophers will not accept the fact that the Earth's magnetism is driven by Rene' ground currents which, in turn, are generated by the east to west movement of the oceans. To believe anything else is to believe that the Earth contains a huge internal permanent magnet. This is, of course, impossible because there are no known magnets that can maintain their magnetism at the high temperatures that the same geo-philosophers insist exist in the center of the Earth. This temperature is called the Curie point which was discussed in a previous chapter. Remember "Mustbee!"

In the original manuscript I had gone on to say, "*Presumably they might have speculated that the heat and the pressures existing in the Earth's core might atomically alter iron to maintain magnetism, but so far as I know, no one has suggested this*". Even if it there were a "hot" magnet there are only two ways to reverse a permanent magnet: The first is to physically turn it over, end for end and the second is to surround it with the coils of a magnet machine and zonk it with a large bunch of amperes. Magnetss only respond to ampere-turns.

The first corresponds to a simple physical Roll-Over which the uniformitarian mind set

denies could possibly happen. For the second, they are stuck with an electrical whack because there is no coil of wire around the Earth. There is only one shorted turn, no matter whether the conductor be air, water or the Earth itself. Any change in the permanent magnetic state of our Earth would have to be accomplished by an incredible number of amperes, an electrical whack of unimaginable proportions. Unfortunately for them, this whack could only be generated by an unimaginable planetary catastrophic on the order of Velikovsky's "*World's In Collision*".

Even if they were to agree that the Rene' Earth Currents caused our magnetism, they still could not show how these currents could, first, reverse in flow and then secondly, increase enough to reverse the whole magnetic field. I'm afraid the geo-philosophers are stuck with a Roll-Over no matter how much it screws up their EBS.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.

I know that the Five Horsemen of the Apocalypse will ride, as they have never ridden before, when the world runs out of fossil fuels. Despite this fact, I despise the entire atomic industry. They have lied to us from day one of the Manhattan Project. Here is a list of this industry's major known accomplishments. Judging by how long some of them were kept secret there are probably many more disasters that remain unknown.

Great Atomic Accomplishments

- 1942 The first fission pile was made critical under Chicago University Stadium.
- 1943 Oak Ridge begins to produce U-235 for uranium bombs. The electrical output of the TVA was 9 billion kw/hr of which 75 % went into military applications.
New York Times, January 1, p. 14
- 1944 Three reactors put on line at Hanford Washington.
- 1945 First plutonium bomb tested. 110 pounds of U-235 destroys Hiroshima. 35 pounds of P-239 destroys Nagasaki.
- 1952 First H-bomb tested.
- 1952 NRX reactor suffered complete destruction of core at Chalk River Canada
- 1955 EBR-1 serious meltdown of reactor core.
- 1957 Fire released plutonium over Denver, Rocky Flats, CO
- 1957 First commercial reactor on line at Shippingport, PA, on December 18,
- 1957 Windseale 1 core burn, 11 tons of Plutonium vaporized, Coast of England.
- 1957 Kasli Atomic Plant—thousands of civilian deaths during first year. Permanent contamination of thousands of square miles of Ural Mountain farms, Zyshtym USSR
- 1958 Fire in refueling room, Chalk River Canada
- 1958 Used fuel rods in Chelyabinsk, USSR melt down.
- 1959 USS Savannah, world's first and last atomic powered merchant ship launched.
- 1961 SL-1 reactor killed 3 men in small core explosion, Idaho Falls
- 1963 USS Thresher reactor accident, off Cape Cod
- 1965 Two more fires at Rocky Flats.
- 1966 Core meltdown, Fermi reactor Detroit MI
- 1969 Reactor contaminated reactor building, Lycem Switzerland
- 1969 Another fire released 2,000 kg Plutonium, Rocky Flats CO
- 1970 Dresden II reactor out of control, Morris IL
- 1970 Savannah River weapons plant has two sequential fuel rod meltdowns.
- 1975 Browns Ferry fire destroyed control cables and plant came close to meltdown, Decatur, AL
- 1979 Partial meltdown at TMI.
- 1986 Complete meltdown at Chernobyl, USSR.

As a kid, I cheered on the peaceful atom because it was presented as the scientific wonder of the twentieth century. However, each passing year has found me a bit more convinced that, compared to the smooth talking, heavy duty, big money motivated government slickers, we are all country bumpkins.

We have been slickered by the fastest and smoothest talking bunch of snake oil salesmen since John D. Rockefeller was financed by the Rothschilds to give up his horse drawn medicine show to play in oil. In fact, it is his descendants who still run his medicine



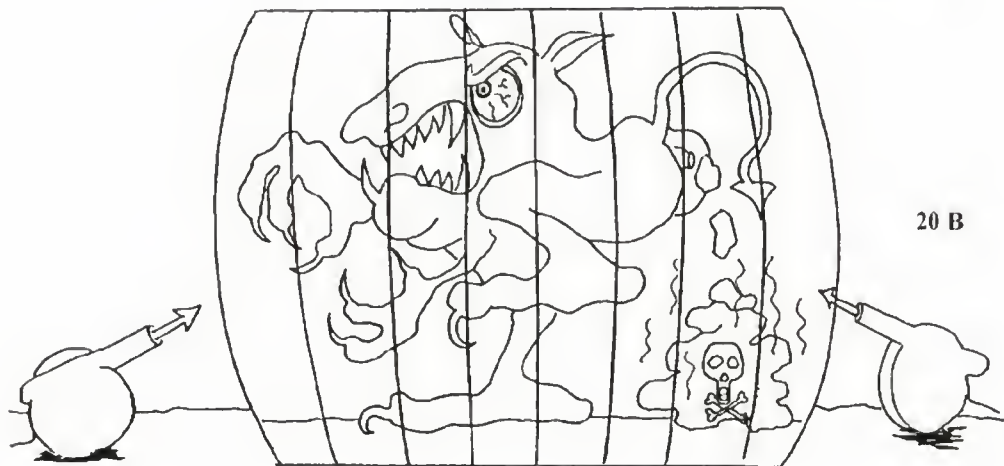
20A

Slickers & Bumpkins

Fifty years ago our government celebrated the unlocking of the atom by a wonderful fireworks show. When it was over, two Japanese cities had been incinerated. This stamped "paid" to the overdue bill that was tendered when the Japs pulled the sneak attack on Pearl Harbor. War is Hell! Not content with this spectacular display, our gubmint slickers immediately began to tout us bumpkins on a strange new beastie. We were told that if we took this here atom reactor beastie into our barnyard we would have safe, cheap and unlimited electric power. However, because we couldn't have just any yokel owning one of these atomic beasties, everything about them had to be classified top secret.

During the late 40's some atomic secrets were slowly allowed to leak out of the government's crypt. The first secret was that it was impossible to build a larger A-bomb. They claimed that no matter the quantity of fissile material used, any amount that exceeded the critical mass would not detonate. Therefore, reactors using a few hundred pounds of fissionable material would be perfectly safe.

Atomic Beastie Cage



20 B

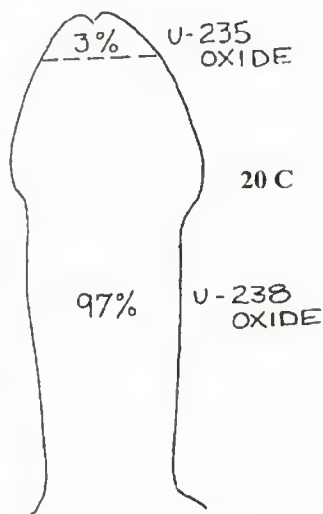
The next secret was that the all important control rods would be made of cadmium. This is a fairly strong metal capable of being forcibly reinserted even if a pile is distorted by

the heat from a partial meltdown. The next one was that, as an added precaution, each reactor would be surrounded by explosively driven cadmium spears which could be fired into the guts and instantly kill the atomic beastie if it ever dared get too fractious. The last was that we shouldn't worry ourselves about the terribly poisonous manure that they leave behind, because our old friend science would very shortly find a way to neutralize it.

There were rumors about disasters during the next thirty years but each time you gubmint slickers had pooh-poohed them. I had an ex-friend scream at me for over 30 years to show him even one case where anyone was killed by the atomic beastie. Shortly after Chernobyl, our friendship foundered. When TMI went out of control, I was forced to examine the original claims and compare them with the results. When no one was looking you slickers had changed some of the conditions of sale. Instead of a few hundred pounds of fuel per reactor you used ... a hundred tons; instead of expensive cadmium control rods you dared to use.... soft and crumbly, cheap graphite (pencil lead); instead of surrounding the atomic beastie's cage with the explosively fired cadmium spears you used ... nothing. Your experts had unilaterally decided that that this here atomic beastie wouldn't hurt a fly. And instead of finding a cure for the crap left trailing behind this strange beastie you have left it soaking in pools or buried it under the Earth's rug.

Fuel Rod

I have reached the point where I want to holler out; Just a goldurn, cotton pickin minute, Slick! You told me that this here atomic beastie would reduce the chunk that energy takes out of my pay but somehow, each year, it takes a bigger chunk. You told me that this here atomic beastie would relieve the drain on conventional energy sources. But I know that the TVA, the place where the fuel rods are manufactured, has become the world's largest coal consumer despite having tremendous hydroelectric capacity. If atomic energy gives off so dang much energy why do you still burn coal? Slick, I begin to suspect that if the atomic fuel were not so heavily subsidized by our Gubmint, that the entire atomic power program would be economically unfeasible.



I want you to know, Slick, that this old city bumpkin grew up to be a Mensa member and, despite all these years of lies, propaganda and dis-information, I was finally able to calculate the theoretical maximum efficiency of these mean machines we call reactors. It takes 100,000 SWU's (Separative Work Units - pronounced swoos) to fuel a 1,000 megawatt plant for a year. A SWU is the amount of electrical power that it takes to enrich 1 kg of fuel to the necessary enrichment of 3%. Assuming that this 3% does all the work, then 100,000 SWU's are equal to 3,000 kg of nuclear fuel.

The beasties were sold to us based on Einstein's indisputable equation: $E = M \times C^2$. The theoretical power obtainable from one gram of material should equal 100 million ... As

Compare this with the 40 % efficiency of a conventional fossil fuel plant, and then tell me that we bumpkins haven't been slickered. Slick, your mean machine is one of the least efficient machines that man has ever produced, and this figure does not include the great amount of time that reactors are off line due to one little desperate emergency or another.

However, Slick, if we consider the reactor as a super producer of radioactive crap, now we are talking MACHINE! Your reactors then become superlative machines with the incredible efficiency rating of 97.1 %. This is one of the highest machine efficiencies that man has ever obtained. And Slick, you sneaky old snake oil salesman, I couldn't help but notice that lately you have been touting breeder reactors. You figure if it worked once it should work twice. What really scares me, Slick, is that you are probably right. There have been a billion new suckers born since the first reactor went on line, and all us bumpkins want to believe that you wouldn't poison the only world we've got for a few trillion dollars more.

Why is it, Slick, that despite the fact that every country in the world has at least one experimental reactor most information is still top secret. It makes this bumpkin wonder if the big secret, the only secret, is to keep us, the bumpkins of the world, in the dark! Slick, never before in the history of mankind has one of man's machines worked so efficiently, so long or at a greater cost, to produce so much highly poisonous crap!

I also love the way you slickers successively hid each atomic fuck-up under the lid provided by the incredibly democratic atomic secrets act! For over 40 years, Slick, you insisted that atomic energy had never killed anyone. You hid the British Windscale and the Russian Chelyabinsk disasters.

Dateline London- January 2, 1988: An article in the New York Times was headlined...

BRITAIN SUPPRESSED DETAILS OF '57 ATOMIC DISASTER

For over 30 years a fire at the Windscale reactor in Britain, so severe that the plant was finally encased in concrete was hidden: not from our government and surely not from Russia government but ... from the people of both our countries in particular, and the people of the world in general. The radiation release was less severe than Chernobyl but more so than TMI, whatever the hell that means. The British government has excused themselves for this suppression on the grounds that it would have made our government (of the people and by the people and for the people) mad at them for giving anti-nuke ammunition to the people. I kid you not!

If a nation as small as Britain with her much higher population density could successfully hide this disaster, I wonder what our government has hidden from us in the wide open spaces of our more sparsely populated states? I even wonder, Slick, if you have secret reactors hidden near major population centers. I can't help but wonder where the Linden, NJ, power pipe got the 946 megawatts that was being sucked into New York City just before the famous blackout. Is there a reactor hidden near there? A small reactor?

towers built at a plant that is allegedly run on conventional fuel. The number of high tension towers that radiate from this plant tells me it generate a great deal of power, and if such a plant is not atomic it must use a considerable amount of conventional fuel. Why anyone would install this type of extremely expensive, cooling units if they weren't needed!

At first glance, because it sits next to an oil tank farm, you assume that it burns trucked in oil. A close look, however, shows that the tanks are all corroded and most would leak any oil placed in them. Then you discover that it must burn coal because a brand new trestle crosses the Delaware, connecting the plant to a rail line on the New Jersey side. Oops! When you take a close look there is rust on the brand new rails, and the old bro-mide about grass and busy streets spring into your mind. The main rail line is also in a sorry state for the amount of coal cars it should handle for a large capacity plant. All that's left is a high pressure gas line. However, the close neighbors, mostly dairy farmers, never saw them installing any type of pipeline. Tiz a puzzlement!

This type of cooling tower quickly became the symbol of atomic power generation because they are vital to the safe operation of these plants. In conventional fuel plants runaway boilers are quickly brought under control by the safety valve venting excess steam to the atmosphere (its only water) and by the fuel valves being quickly closed. Within seconds the high pressure emergency is over.

In the atomic plant a years worth of fuel is available right in the reactor pit and not only is the runaway exponential but the speed of fusion is in milliseconds. In case of a runaway the control rods are "scrammed" back into the pile (a slow process) and the extra heat is removed by the immense radiator called the cooling tower.

That same year, 1957, saw the Kasli Plant in Russia self-destruct with thousands of civillian deaths (the first year)and permanent contamination of thousands of square miles of farms. This is an area roughly equal to half of the state of New Jersey.

In 1958, the very next year, you slickers and our arch enemy (the horrible Russian Bear) actually conspired together to deny the melt down of used fuel rods stored in Chelyabinsk. That disaster poisoned a few hundred square miles of land which to this day remain uninhabitable.

On October 5, 1966, the Enrico Fermi Reactor in Michigan ran away and then for some reason, still unknown, stopped. Now you claim that there wasn't much damage done but that story never saw the light of day did it, Slick? In 1979, there was the Three Mile Island incident that you are still lying about. What you have never openly admitted, Slick, is that TMI suffered a partial meltdownand that the control rods have never been fully inserted. What you haven't yet told us is that the rods still haven't been pulled from that reactor because no one can enter.

As of June '82, I knew for a fact that the badly damaged TMI reactor was still critical (running) because the rods could not be reinserted. This means that the steam is either being vented or used for power generation. On 12/7/87, the papers carried a story that

together. Calling me a "slicker" (which may or may not be accurate to appreciate what an "slicker" is) is more bullshit but a little closer to the truth. On August 31, 1989, the News-Press of Fort Myers FL carried an article under news from Pennsylvania with the headline...

"CRACKS CONFIRMED IN REACTOR LINING"

The story relates how the investigation "required a newly developed radiation resistant color television camera and specially designed tools to brush debris from the area ... through forty feet of water." They still don't know if the cracks of the thin stainless steel liner extend into the five inch thick carbon steel reactor vessel.

Obviously that reactor is still not shut down. If the reactor were shut down, there wouldn't be radiation in the dome at those levels nor debris in the pool, which should be kept spotless lest a pump should fail. And when pumps fail the temperature rises; and when the temperature rises, the reaction increases. Slick, the old rods are still in there and each month they are deteriorating into ever more poisonous and dangerous crap. Another truth still hidden from us by the secrecy acts.

Then came Chernobyl, Slick, and one big ugly atomic beastie finally tore his way out of the sack. From the 1986 edition of the "McGraw Hill Science and Technology Encyclopedia" I have found out that the odds against a meltdown are 5 billion to 1, and in volume 12 on page 139, in the last paragraph on the page it calls TMI a partial meltdown. I will sleep better tonight, Slick, knowing that we can't have another Chernobyl for at least a million years because of the way you slickers fix the odds!

The atomic cycle starts with the mining of uranium ore which must be crushed, leached and treated to separate the uranium compounds which, after much refinement, consists of two oxides whose uranium content is 99.3% U-238 (uranium) and .7% U-235 (fissile material).

These are then converted to uranium hexafluoride which is shipped to the Oak Ridge separation plant, where the lighter U-235 compound is separated from the U-238. Both are made into dioxides, and then the U-238 dioxide is enriched with the U-235 dioxide until the concentration of U-235 is around 3%. This mixture is known as enriched fuel, which is pounded into pellets and then loaded into long hollow stainless steel tubes called fuel rods. All atomic fuel is created in one of three Gubmint owned enrichment plants. These plants are safely operated by international conglomerates like Dupont and Union Carbide, companies similar to the one that gassed all those people in Bhopal, India a few years ago.

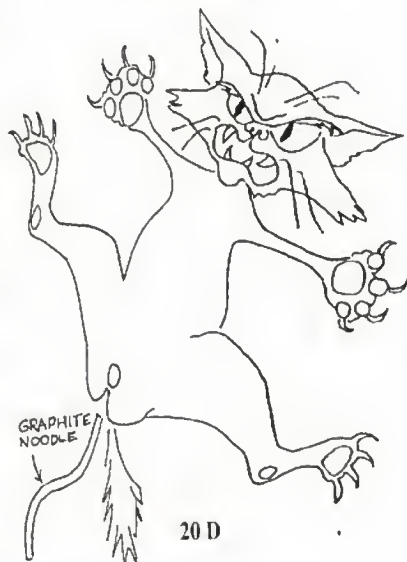
Believe it or not ... a large reactor contains over 100 tons of fuel. Since this is an oxide the total uranium content is about 85%, or only 170,000 pounds, and of this 5100 pounds is U-235. You slickers tell us that an A-Bomb requires 110 pounds of U-235 so if I believe you, which I do not, then that plant contains only 46 bombs worth of material. Despite the fact that they have led us to believe that plain Uranium (U-238) is not a fissionable material, it will fission if smacked with fast neutrons. The U-235 is fissile because it need only contain a critical mass in the shape of a sphere for it to explode in

A power plant is a place that creates steam by burning fossil fuels or uses the heat from fissile fuels, the energy cycle begins in the ground. We mine for coal and uranium and drill for gas and oil. A fossil fuel plant attains an overall efficiency of almost 40% leaving 60% of the energy to run up the stack or into the heat exchangers. Fossil fuel plants damage the environment by creating acid rain. The worst case disaster in a fossil fuel plant is that a boiler explodes. But conventional fuel boilers can be shut down within seconds by simply shutting off the fuel feed and venting the steam.

A reactor goes critical by the removal of the control rods. The reaction and heat generation are exponential and the criticality is delicately controlled by the in and out movement of the rods. This means that reactors are always balanced barely on the edge of control.

Wildcat's Ass

The rods are made of soft graphite (pencil lead) instead of strong cadmium to keep the cost of the plant down. When the rods are in, they absorb fast neutrons and stop the process. As they are withdrawn the neutron levels increase exponentially. A reactor is always delicately balanced by the continual movement of the control rods and the influx of coolant. This works as long as the average activity and associated heat is uniform. Slick, you know that any screw-up at all starts a potential meltdown which can only be stopped by trying to shove a graphite noodle up a wild atomic cat's ass.



Suppose a small section should exponentially fission and generate a local hot spot.

Before the average temperature climbed enough to give a warning, and possibly even before the radiation detectors could isolate that small increase, a local spot would be super heated. The walls of the control rod sleeve would already be distorted to where the rod could no longer be inserted. If the rods were made from very strong material and hydraulically driven it would be possible to jam them back in. But our control rods are made from pencil lead! Is this what happened at TMI, Slick?

Slick, isn't the heat build up explosive in a melt down? Doesn't that make a helluva lot of steam? A thin shelled dome of reinforced concrete is not a good material for resisting tensile loads. When the pressure is raised inside a containment dome the entire shell is placed in tension. Even an increase of one psi translates into 144 pounds per square foot loading. In a dome that bridges a few hundred feet a few pounds of internal pressure would be enough to make it behave like Mt. Saint Helens!

And some reactors have flat topped containment vessels. ¹ There is a picture of one taken at Windscale that is at least 40 feet in diameter. Even a pound of pressure would

hydrogen bubble that miraculously formed in the dome? So while you babbled us with the bullshit about that mysterious hydrogen bubble that had to be vented, you were using every trick in the book to get rid of the excess steam. You had the turbines screaming, you were pumping in the entire Susquehanna River and you were venting all that shit into the cooling towers and releasing it into the air, weren't you, Slick? At some stage you finally pumped in boron to help moderate the reaction. I guess we should thank you for preventing a Chernobyl type disaster.

Thank you, Slick!

And that plant farted, didn't it? And that fart released scads of wonderful crap like strontium 89 & 90 which gets into the milk and helps young bones grow doesn't it? So does iodine 131! And we also thank you, Slick, for a bountiful supply of cesium 137 and barium 140. Isn't all this good for what ails us?

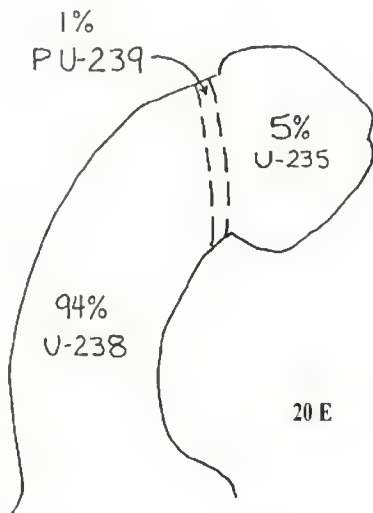
The biggest problem with atomic beastsies, Slick, is that the fuel rods get "spent" after a year in service and they must be replaced. Some of the U-238 is transmuted into Pu-239, while the U-235 creates other obnoxious substances even more inimical to the health and welfare of growing things. Especially baby things! Hasn't the cancer rate increased each year, until now about one person in three will get it?

However, the tiny reactors that are placed in the space probes work year after year and don't become "spent" do they, Slick? Is that because they have less than critical mass and what you actually have when a rod gets "spent" is not a limp dick but a rampant diamond cutter?

Spent Fuel

Now, Slick, you go to all that trouble to enrich the fuel so that the reactor will work in the first place and then you tell us that a higher percentage of fissile fuels is going to stop the reactor. Bullshit! It takes little imagination to see that the problem is going to be one of maintaining control. Isn't "spent" a new-speak word invented by your scientific and academic flunkies to keep us bumpkins off your ass?

For some very strange reason the "spent" fuel rods are not all reprocessed. Those that are, vent radio-active gasses and create some horrible beastie crap that must be buried. Shipping those rods to the reprocessing plant is quite a problem isn't it, Slick? Those are the huge trucks we see in the middle of the night with the small radiation placards on them. Despite the fact that they are lined with tons of lead they still spray radio-activity around, don't they, Slick?



Forty years of beastie shit stored all over the world in pools. There are over 110 reactors in this country alone and each generates at least a couple of tons of weapons grade material a year. Yet the DOE maintains two reactors at Hanford that do nothing but generate weapons grade beastie shit. These reactors, contrary to what we are told, are of the same design as the ill fated Chernobyl reactor; they are almost 50 years old and getting very tired.

Slick, if the figures in the "*Handbook of Energy and Technology*" are accurate it would cost only \$740 to reprocess a kg of the shit that makes a bomb. Why is a "Gubmint" that joyfully spends over \$700 for a screw driver suddenly cost conscious when it comes to the manufacture of city busting bombs? By reprocessing some of these waste materials at least the Hanford reactors could be shut down. I'll bet the cost of operation of these two weapons reactors amounts to tens of thousands of dollars for every kg that they produce.

Since day one, Slick, you have told me that an A-bomb could not be made larger than the Hiroshima type. This is supposed to make the 100 ton reactors safe. The philosophers under your control swear on their little mercenary souls that temperature and pressure have no effect on nuclear reactions. In effect, if true, this means that no matter how much U-235 is placed together only the critical mass will explode and the rest of the material will simply be vaporized during a Hiroshima sized explosion. Hey Slick, picture this ... **Bang!** And a 100 tons of bad beastie shit vaporizes and scatters into the prevailing wind.

The U-235, we are told, will only respond (fission) to slow neutrons. To safely accomplish this a moderator must be used along with fuel rods in order to slow down the fast neutrons that are being generated by the U-235. This moderator is usually water. If the U-235 can't explode why is the water necessary as a moderator? Do the reactors we send into space contain water, Slick? I thought not!

And if the U-235 responds only to slow neutrons, how does a critical mass which is generating fast neutrons go off by itself? If pressure and temperature do not affect the emission of radioactive particles, why is it necessary to slam a less than critical mass together with high explosives to create a baby A-bomb? To the best of my knowledge every explosion generates only great temperatures and pressures.

The amount of energy that it takes to create 1 kg of enriched fuel is called a SWU. You claim, Slick, that it takes only 2500 kw/hrs of electric power to create a SWU. This bumpkin realizes that this figure is critical to atomic power industry. If it takes much more power then the entire atomic industry is a macabre joke because we would then be in the unviable position of having paid humongously to destroy our environment and kill ourselves.

A few years ago a SWU sold for about \$130. If we divide 2500 kw/hr into this we get a kw/hr cost of 5.2 cents which was about the cost of commercial power at that time. This cost does not reflect the mining, the transportation, the fluoride process, maintenance, labor, depreciation or amortization. If the power cost of any other commercial product were this high, the market price would be at least ten times higher. The difference between these figures must approximate the amount of Gubmint subsidy. Slick, I no longer

reading that the entire output of the TVA, the largest power complex in the world at that time, took three months to create the materials that went into the first bomb. This was verified when I found the January 1, 1944 article in the *New York Times*. Before we continue, instead of the official 100 pounds of U-235 per bomb let's use the more realistic figure of 20 pounds. Therefore about 2,250,000,000 kw/hr was used to generate less than 50 pounds of weapons grade material. This is 450,000,000 kw/hr per pound. Today you claim that it takes 33 SWU's or 82,500 kw/hr to create 1 kg or 2.2 pounds of weapons grade material. This is 37,500 kw/hr per pound.

Here's the problem, Slick! If you told the truth in 1943 about the amount of energy necessary to create the material, then you are lying now. For both statements to be true you would have had to improve the efficiency of the process over 120,000 per cent. We like to think that our engineers greatly improve efficiencies over the years, but this is not usually true. Track any product back to the first lab prototype and the improvement in efficiency is always much less than 100%. For the separative process to have increased in efficiency 12,000 times would be a miracle.

The armed forces of the world have many atomic powered ships, the various Merchant Marines have none. Warships are designed for speed and range, not fuel economy. A destroyer at flank speed burns over 16,000 gallons an hour of fuel oil. Merchant ships burn less because they are not trying to set speed records but fuel consumption is always an expensive consideration with ships. On July 21, 1959, the Savannah, the world's first atomic powered merchant ship came down the ways in Camden NJ. If atomic power is economical, why was this ship also the last?

And last but not least, Slick, you have bullshitted us into believing that our atomic industry does not create any more radioactivity than existed in the first place. U-238 shows almost zero radioactivity. From this material comes tens of tons of U-235 and Pu-239 every year. Pu-239 has a half life of 240,000 years!

In October '89, I bought a second hand book entitled "*Poisoned Power*", written by two medical doctors. The book holds an excerpt from an article on the fast breeder reactors written by Edward Teller and published in the August 21, 1967, edition of "*Nuclear News*". ²

"But if you put together two tons of plutonium in a breeder, one tenth of one percent of this material could become critical...."

"In an accident involving a plutonium reactor, a couple of tons of plutonium can melt. I don't think anybody can foresee where one or two or five percent of this plutonium will find itself and how it will get mixed with other material. A small fraction of the original charge can become a great hazard."

A Great Hazard! Leaping Lizards, Slick, does that mean that the father of the H-bomb, E. Teller, is telling us that a reactor can explode like an A-bomb?

It seems to me that one tenth of one percent is four pounds and my mentor, Pete Ross,

make a plutonium A-bomb! He also told me that 10 pounds of U-235 made a standard uranium bomb. Was I told the truth, Slick? Pete was a personal friend of Leo Szliard of Manhattan Project fame. Did Leo tell Pete and if he did, were they lies?

Pete's father, King Ross, did secret research for the government during WW2. He was another genius and periodically during the early 1940's, four men would simultaneously come to see him at his tiny house in Edgewater, NJ. Three of them were Fermi, Einstein, and Tesla. Come to think of it, Slick, Pete's father was also murdered near his secret lab at Bush Terminal. They never caught his killer and his family never did find the lab. But you wouldn't know anything about that, would you?

This book also showed how you slickers, with your lies about "SAFE" radiation levels, have medically guaranteed a cancerous future for most of us. The book also told about the Price-Anderson Act of 1957. This act was passed in response to a Brookhaven study that showed that a disaster of a 100 megawatt plant would involve 7 billion in damages to property alone. Had the reactors of the time been as large as they are today the damage at that time would have been 50 billion. And that was the cost in 1950 dollars.

Since the insurance industry absolutely does not insure against any damage to person or property from a nuclear accident of any sort, this act was necessary so that our friendly utilities could bring us the atomic beastie. This act says that the Government will co-insure with the private utility. The total liability for all claimants is limited to 60 million to the utility and 500 million to the Government.

This is a total of 560 million for all the property and people in an area that may be as large as the state of Rhode Island. And it will happen in a populated area because reactors are only built on the outskirts of major population centers. You can't sell much electricity where population is sparse. Isn't it strange that no one in the news media ever tells us about things like this. I am a fairly informed person but this was news to me. How about you, Slick?

In 1957 this would have amounted to 8 cents on a dollar of damages. At the 50 billion figure it would have been a penny on the dollar. After 35 years of government created inflation, if the current value of your house is \$ 100,000 you will be entitled to ... a grand total of \$ 70 dollars before you pay the lawyer that sued the government to get it. And that magnificent sum includes the damages if your wife, kids and dog are fried.

Now you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory, especially if the theorist is a sophisticated liar.

New ideas or questions that probe the behinders of sacred cows whether social, religious, political or scientific are now, and have always been, viewed as heresy by those who are dedicated to maintaining the status quo. This is especially true for organizations of professional wisemen in a field under attack. People in control will not stand for heterodox opinions.

A high IQ has nothing to do with this most human mental disorder. People respond to emotional issues emotionally and any issue which threatens ego, rice bowl or status becomes an emotional issue. Their EBS tells them all they need to know about the issue at hand.

There are Mensans who have asked me, “*Rene, you’re not a scientist, why do you care about science?*” I usually evade an answer because I consider that to be a truly dumb question.

I care for two reasons: First, science promised me something that religion could not. It promised an “open minded” approach to life and that it would never resort to authority in a dispute. It failed to deliver on its promise and it has degenerated into another paternalistic religion.

Second, because only “open minded” scientific thinking can defeat the horrendous problems I see directly in front of us as the result of planetary over-population by the masses and the total slavery being imposed by our masters. Most of the world’s problems have always been generated by these same demons. As a result of this, we will be hammered first into the straight jacket of a one world Global Plantation which will then reduce us to the most abject slavery the world has ever seen. It will be a slavery enforced by computers and radio receiver slave collars that will blow off your head for crimes as simple as close trespass to our masters!

In the past the rebels took to the deserts, the mountains, and the forests and fought there to keep the traditions of freedom alive. There are no hiding places from today’s technology. If we fail to discern the real problem of over-population from the politically correct pseudo problems our politicians and social workers and shrinks babble about, we will become quasi-starving ant creatures, wearing electronic death collars, whose survival is at the complete whim of the new nobility of billionaires who will run that ant hill.

About 20 years ago James Caan starred in a futuristic picture called, “*ROLLER BALL*”. In it he was a super athlete who became the talk of the world because of his ability to survive the deadly game. There were only 10 corporations left in that world and they ruled with iron hands. Everyone should have to see that picture once a year so that they may know our rapidly approaching future.

The proof of this statement can be found in the ratio of CEO salaries compared to the people they employ. In the 1970s that ratio was about 10 to 1; it has climbed to about 30 to 1 and is still climbing. We used to laugh at India because while 99 % of the people were dirt poor they supported their nobility with yearly tithes (gifts?) of precious jewels

Our democratic dream is crumbling even as I write because of the recent onslaught of immigration by English illiterate, ignorant and religiously fanatical immigrants fleeing their own fouled and stripped ant hills, who carry with them the very mind-set that ruined their ant hills in the first place.

Witless fanatics waving banners and praying to God will destroy the type of thinking that might have saved us. Fanaticism is always destructive to someone. Where would be the fun for the priests in running the power trip called organized religion if you couldn't turn your fanatics loose on the non-believers?

Although we generally associate fanaticism with religion, fanatics come in all sizes, shapes, sexes, colors and persuasions. There are patriotic, political and even scientific fanatics, all of whom have surrendered their critical reasoning to their usually shrewd but equally demented leaders. Fanatics are dangerous because they believe that only they and their equally stupid associates possess the truth. Beware their surges of self righteous anger.

- What was once an integral part of the scientific routine, self criticism, no longer works. Today's philosophers break their own arms by patting their own backs congratulating themselves for being able to get so close to the government trough.

They tell us that science is now much too complicated to be understood by anyone but another expert in their field. They contend that progress will only add another decimal place to existing knowledge and that when the decimal is added it will be by one of their own. After years of their lies, half truths, bombast and abuse I am only too ready, willing and able to supply criticism by the truck load.

During the past year I have been receiving reports from people who have the original edition written in 1989, that some professional philosophers are beginning to tout those ideas. You don't think ... Nah!

- As I have shown, our Earth cannot be in perfect balance and this requires either an equatorial bulge or some type of planetary bearings to maintain the stability it exhibits. Without these René Bearings our freely supported Earth would respond by immediately Rolling-Over, bringing the great circle line of heaviest mass to a new equator, thereby changing our existing polar axis. And with each new imbalance it would again slightly re-align the equator.

If this rotation depended solely upon the inertia of the planet, how did the solar flare of 1972 slow the planet down by 10 milliseconds in one day? This was greater than any slowdown ever measured before. How did the earth slowly regain its rotational velocity if it isn't being driven by some solar generated force?

- The meteorologists claim that our weather is driven by wind and barometric pressure. I believe our weather is the result of the movement of our polar air masses and that they are exclusively motorized by the action of the electric forces generated by the solar wind. The polar winds drive our climate, and they in turn are powered and con-

trolled by the solar winds. The solar wind also drives a west to east movement of the air which "scrubs" the oceans, moving them from west to east which, in turn, drags the sea with it, providing the torque to rotate planet.

I believe that the oceanless planets like Mercury, Mars and Venus rotate very slowly compared to Earth being driven primarily by direct electromagnetic effects. On the other hand, the alleged "gas" giants rotate rapidly because of their extensive and thick atmospheres. I also believe that the future will see the densities of the solid planet's decrease and those of the "gas" giants increase drastically. A rock is a rock, is a rock!

- Newton's equatorial bulge, allegedly created by the centrifugal force of rotation, does not stand up to either mathematics, the rigor of a mechanical test or direct observation. How can 3 dynes of force hold up a column of water 13 and a half miles high? Why doesn't the turntable test shoot the water out of the U-tube? Why don't local surveyors see the slope which must result if there is a bulge? Why did a Mensa geodetic surveyor fail to find the error in the test I derived if it is so erroneous?

I have been told that radio telescopes can accurately measure the Earth and detect the slightest shifting of tectonic plates sliding past each other. That's about the same as the joker who said he found another star's planets by computer enhancement of that star's light in October, 1984.

That's in the same league as NASA, who alleges that Houston could discriminate the microscopic Apollo capsule from the Moon's surface when the lunar Lander was descending and was less than 9,000 feet of altitude from the Moon's surface. Not only that, but NASA supposedly had time to check out the orbit, and then decide whether their run for the surface was "Go" or "No-Go". All this at the end of a distance related 2.6 second radio delay in the transmission loop.

- Our experts make miracles for us, the uninitiated, everyday. They make megabuck Gravity Detectors and then gawk in amazement when they detect an exploding giant star or a super nova inverting to a black hole in syncopation with half of Earth's sidereal day.

Neither the gravity wave nor the graviton created by supernovas or giant collapsing exploding stars has ever been detected by the philosophers. Silly theories create stupid results! Why are they trying to prove Relativity by negating the very principle they seek to prove? If mass can move faster than the speed of light, then there is no sense to the Weber gravity detector. If not, then these "giant" stars must be awfully small.

If attractive gravity worked, Rene's Balls would pull each other into contact. As it is now, they will all probably wind up pinned against the eastern rim. I don't know why, but the Lamont-Douherty people, perched on the Palisades in New York, report this type of behavior from objects floated in the caves they have dug under the cliffs.

- The fact that the tides are antipodal precludes attractive gravity despite the mathematical magic that shows anti-gravity. The tidal patterns of diurnal, semi-diurnal

passage? In this case it would be a repulsive tide.

Why are tides in a tropical well at their lowest when the moon is directly overhead? How do the Newtonian apologists explain the fact that during an eclipse the highest tides are always delayed for a few days?

The tidal predictions themselves are not calculated but empirically predicted from past records. Why is the tide for Tahiti and some of the other mid-Pacific islands always high at midnight? What about the zero tides that are found in the Mediterranean Sea? This leads me to think that tides may be more the result of a wobble in the Earth than derived from Sun and Moon. They surely doubled in height during the 70's along the central New Jersey coast.

- The reason why spring scales were shunned for years was because they are sensitive to forces we do not understand. Why did the experts denigrate the scales instead of the theory of gravity?

What causes the anomalous effects that the torsion pendulum scientists are recording during solar eclipses? Why is it that not one of them has the balls either to answer my letters or declare gravity to be a fig-Newton of his imagination?

Why was Dr. Brush so hounded 70 years ago when he reported anomalies in free fall experiments? I proposed to the NSF to hang a really long vacuum drop tube from the side of a building and I was told they already knew everything about gravity. This is "open minded" science at work?

Why was Scripps Institute funded in 1990 to do the experiment I had suggested to the NSF in 1987? Why did the great scientist in charge of that experiment never answer my letter? Did the NSF fund this as I suspect? The Navy was involved and as far as I know only the NSF can call out the Navy for science. Or is it naval intelligence that activates both?

Why do my mine-shaft calculations not agree with attractive gravity? Why should that portion of mass above you not count if gravity is a natural law as we have been told?

- After all the ages the up and down merry-go-round motion of the Moon's Saros cycle should have settled out if only Sun and Earth pull at it.

Why should my "Unproof" still stand after six years of angry and desperate attacks if it is fallacious? A material body should have no choice but to go with the flow and obey the strongest force. Since the solar pull is much stronger, why isn't our Moon lost to us every month? Either the law of gravity is erroneous or the laws of motion are not true. Pick one! But you can't have both.

If the sinousoidal Moon concept is true then the definition of rotation must be changed. And even if true, both Earth and Moon cannot be "always concave to the Sun" as is claimed in the astronomy texts. And if true, why are the rings of Jupiter and Saturn

those same texts written by the "wise men" said that the Earth. Do you believe in an accident free "cross the X race" where each car has no steering wheels or brakes and some of the cars are going in the wrong direction? If not, then you must reject their sinuousoidal moon concept.

- If Newton edited his "Principia", and he had 20 years to do so, why didn't he edit out his erroneous values? Was he a man who would use whatever was handy to prove his point of the moment? Wouldn't that make him the unprincipled liar that I believe him to be? So much of his work has been found in error over the years that all that is left are the equatorial bulge and gravity and I have destroyed them.

The most confusing thing about his work is that he denied that gravity was an innate property of mass. He claimed that thought to be an absurdity. Why did he leave completely unanswered what he thought gravity to be? He also based his gravity on the false assumption that the Moon obeyed Kepler's law in the form it was then.

- I believe gravity to be no more than the attraction and repulsion exhibited by immense magnitudes of electricity. Alternate attraction and repulsion would help to explain the Saros cycle and the dance of the orbiting moonlets and ring particles. Repulsion would better explain the observed tides because it is a known fact that falling water is repelled by a static field.

The Sun generates an incredible charge at a phenomenal voltage. This must affect celestial mechanics to some degree but our philosophers have absolutely proven for 300 years that only gravity counts. Why is it so impossible for them to see that electricity must play a part?

An astronomer went looking for a new planet on the basis of barely measurable perturbations in another planet's orbit. Damn, if one wasn't finally found. It was nowhere near where it was supposed to be, nor did the technician who actually found it get the credit, but that's what class war is all about.

Someday, another Newton is going to come along and supply us with calculations that prove that both rotation and revolution, and the planetary and lunar tethers, are electrical. Space is not resistive to electrical currents. Perhaps a pure vacuum is, but not once ions begin to surge. I would not at all be surprised to find a healthy electrical charge on our planet despite the fact that to satisfy the tether force needed there must be a great discrepancy between the Earth's charge and the Sun's. However, I'm sure that the force needed will be found much less than now thought because I believe our Earth's official 'density' to be much too high.

- There is also something very wrong with our basic electric theory! If electrons traveled easier in atoms that are closer together (metals), then why does compression of the air so greatly increase the electrical resistance?

The René Two Leaf Electro-Scope proves that what we think of the attraction and repulsion of static charges is not true. Why have I been totally unsuccessful in getting it

All the Physics books need rewriting and the René Two Leaf Electro-scope proves Coloumb's statement should be revised to read, "Only identical charges, no matter the polarity, repel. All other charges attract." Physicists, rewrite the goddamn books!

- Would a single mylar balloon hooked to a manometer show an increase in internal pressure when strongly charged? Each particle should repel the next and something should happen to the surface of that balloon and be reflected by internal pressure. It's hard to imagine strain without stress. Perhaps it would even decrease the pressure, but a sensitive manometer should show some change.

Would two differently charged balloons, one internal to the other, show a compression of the inner balloon under the strain of a differential charge? If it did, wouldn't this be a demonstration of electric gravity?

- Doesn't my electro-scope show that particle physicists know not whereof they speak? How can you use high intensity electro-static fields to test particles if you are not aware that the electro-static law itself needs modification?

Oh Great Particle-Philosophers, how can you tell us that some basic particles twinkle in and out of existence when you don't even know if they are being attracted or repelled during the nano-pico second of their brief existence?

So much of what we believe true in cosmology is based on Einstein's Relativity. But what truth can there be in Relativity if time after time, astronomers who conduct honest observations, unlike Eddington, cannot find his gravitationally bent light.

- The propeller plane time dilation experiment was ridiculous. Clocks flown zig-zag in different aircraft, at different ground speeds, unsure of their position is not the way to prove anything. Satellite clocks in equatorial and polar orbits would give us the truth. But again, the philosophers don't want to hear any truth different from the truth in their physics Bibles.

Time and time again the astronomical philosophers were forced to revise Hubble's constant to save the "Law" of Relativity. Each time a bigger telescope enabled us see further, we found that Hubble's law was allowing a few more galaxies to exceed the speed of light. Solution, decrease Hubble's constant. Isn't a reduction of 90 percent a bit much?

His constant is based on the assumption that light doesn't tire no matter the distance. Perhaps it does and I reiterate that Michelson and Morley did not test to find if the speed of light was a constant. Our philosophers have read into their results what they wanted to see there.

The René constant of tired light uses the same observable facts and shows that light gets tired and that galactic velocities may not be anywhere in the ranges we think they are. The galaxies themselves are no longer physically being driven apart by the Big Bang. In fact, if they are then we would have to be back at the center of things, as shown by René's exploding balls. An observer in the center of an explosion would see all the balls

moving away and show those the farthest away to have the fastest velocity.

- Because Newton convinced us that our Earth was so massive, those who followed believed our magnetism was integral to a core of magnetic iron. We lost the magnet but kept the iron. Now, of course, our core is thought to be liquid iron surrounded by high density liquid stone. The problem with all this theory is that the only liquid stone we can find is that extruded from volcanoes, and all of that forms relatively light material like pumice. If the Earth is as old as they say, and it was once liquid as they say, then the cooling rate is extremely slow and counter balanced by just the right quantity of radioactive heat. Why is it that we can exactly maintain the 175 mile thick crust? Isn't this a very precarious thermal balance, at best controlled by a gentle, loving, uniformitarian God? A little more heat and the surface melts a little less and the core would freeze into a solid.

- How could our rocks support themselves unless gravity was mostly a surface effect? Rocks that we see at the bases of tall cliffs should explode outward at the tap of a hammer because of the tremendous loads they support. In fact, since rocks are not at all malleable, any brisant explosion such as miners or hard rock tunnel men create should bring down incredible amounts of rock on cliff faces. Why doesn't this happen?

- Our sky is fluorescent, which can be proven by attaching a black paper tube to a light meter. This electrical ionization of our atmosphere also gives the sky its blue temperature color and must drive some of the atoms to tremendous heats for it to show blue. The blue of the sky deepens from horizon to zenith because less atmosphere equals less florescence. This in turn proves that tremendous quantities of electricity must bombard our Earth. In addition, the oceans as they flow through our magnetic lines of force must generate even more electricity and conduct it into the ground.

- I believe that ground electricity, not magma, is the cause of vulcanism. The experts laugh but Pete Ross created an electric volcano. Can they? Can the professors that taught them do it? Our artificial volcano transmuted elements and gave off excess heat. Can any of them do that without the emission of deadly radiation? How unfortunate that no expert ever agreed to come and see it done while Pete was alive.

Most volcanic explosions are so powerful that steam must be ruled out as the prime cause. How do you reintroduce water into the volcanic chamber (boiler) without a high pressure pump? How can steam, with a limit of 3200 psi, blast rocks hundreds of miles without the benefit of a rifled barrel? How are the static electric and magnetic phenomena associated with volcanoes to be explained if volcanoes are not primarily an electric phenomena?

- How can the philosophers explain the maps of Piri Reis and Finneus that show Antarctica's river valleys and mountain ranges which are now buried under a mile or two of ice? They claim the first to be a fraud and the second they ignore. Original copies of the Finneus map have been in libraries for centuries, so any claims of fraud in that direction are ludicrous. The very least that these two maps prove is one of the three following points:

- The human race painfully gains knowledge and then just as painfully loses it. The 1,000 mile long ancient Chinese canal was not done by guess and by God as some Mensans, totally ignorant of construction, have claimed to me. It was executed with malice aforethought using sophisticated leveling devices, at least rudimentary trigonometry and not only knowledge that the world was a sphere, but also a knowledge of the approximate diameter.

In Saesayhuaman, Peru a carved monolithic stone pyramid is buried up-side-down. It weighs over 40 million pounds and was quarried over 200 miles away. There it sits and our philosophers ignore it. Hell, they don't even want to tell you about few stones of red granite in the great Pyramid that weigh over 100 tons apiece. Do you still believe that a stone this size was hauled up a ramp?

Cyclopean ruins are found on every continent and are called antei-deluvian structures, meaning that they were built before the "mythical" flood. Immense stone structures are even found on certain Pacific islands. Some sit on basalt arranged as a crib, and then there are basaltic roads that lead into the ocean.

Our experts fail to explain Tiahuanaco sitting there two miles above sea level. Do they actually think it was built there? And if so, how did the sharks and sea horses get into Lake Titicaca? Or do they think that the pre-Incans were so enthralled at the idea of swimming in ice cold water with sharks that bite that they built the city as a spa?

They can't even explain how we lost the knowledge of electricity over the past two millennia. The Near East had batteries and the Far East made aluminum. In both west and east platinum jewelry has been found, and very high heats are required to work this element into jewelry.

- Our geo-philosophers tell us that the magnetic poles reverse their polarity from time to time. The Earth has only one shorted turn in its coil, and to toggle the magnetic poles it would need the kind of ground current that boggles the mind. Where would they get it from in a uniformitarian universe? Once again they believe in magic while preaching against it.

I would bet that if paleo-magnetic core samples were oriented prior to their removal, they would show that the old poles had a random orientation. Wouldn't this prove that our planet does "Roll-Over" rather than that the poles magnetic fields reversed?

- This leads us to so-called Ice Ages. Our experts believe in periods of world wide glaciation that at times grows ice clear down to the equator. They must believe because the same evidence that they find in temperate zones exists in equatorial regions. I too, believe in Ice Ages. The Antarctic ice age is on right now. There is always an Ice Age occurring where ever the poles happen to be.

Then they would have us believe in anti ice ages ("interglacial periods") so warm, that elephant type creatures could be fed during a 6 month night by the profusion of grasses, bushes and trees grown in the now tropical climate of the polar regions. On again, off

again, ice ages would have to occur with their usual frequency in the formerly torrid tropics and the formerly frozen poles.

What they have never provided was a believable mechanism for this process, but they all wind up with a drop in the planetary temperature. They all fail to take into account that glaciers require a heat pump. The more widespread the ice, the larger the heat pump that is needed to evaporate and transport the prodigious amounts of water that will form the ice.

In their zeal to be politically correct, "open-minded" scientists, they fail even to acknowledge that only growing ice caps can calve ice bergs. Yet they tell us that we are now in the beginning stages of a hot house effect.

The popular philosophical opinion about the rising oceans is to blame it on melting polar caps. If this were true then the Antarctic beaches the Russians mapped in the early 1800s would be again exposed. The most probable cause is that the oceans have expanded due to less than a degree temperature change. A more logical cause would be the great number of active volcanoes that lie under the Pacific. Unfortunately this heat will prime the polar heat pump and pile up even more ice.

- If we re-examine what are considered absolute proofs of ice ages, we see that moving water also produces similar, if not exactly the same results. Erratic boulders were more likely carried by tidal waves that reached to the sky. Waves like these would carry more boulders, bigger boulders, faster and further than any sheet of ice. The only proof of ice ages are the depressed basins that dot the globe. The newest one to be formed lies under the Antarctica ice sheet.

Until a few short years ago the expert water-philosophers denied both the existence of giant storm waves and giant tidal waves. Then the Lituyo Bay glacier dropped a berg into its sound which drove a giant wave, a third of a mile high, (1720 feet) onto the far shore, sweeping away a forest. And it did it in front of witnesses. Can you imagine the size of the wave it would take to over run an entire continent? A wave so tall and broad that when it finally collapses it is in the middle of a continent, it begins to selectively drop the sweepings of its travels. First it lets go of the giant boulders, then the smaller rocks, then the carcasses it has created in its journey and last of all, the plant life.

Coal, anyone? Pile up a forest and cover it with dirt. Oil? Dump all the fish from a sea into a basin and cover with sand. Bone caves? Let the shattered carcasses swirl into a cave. Anything is possible when the Earth twists under its oceans at the equatorial rotational speed of 1000 mph.

- We have been told by some anonymous genius that a temperature drop of only two degrees would start the next Ice Age. We would lose more of our already precarious food supply, but even were it to get cold enough for the oceans to freeze, there would be no world wide glaciation. No heat pump, no ice sheets. Have you ever heard of a Siberian Glacier?

Despite Carl Sagan's pessimistic pronouncements about the hot house effect, it has been

Nor did the people in Pensacola's Historical society who failed to provide me with the requested information on the presence of manatees before the turn of the century. Or maybe you think you will see a gator in the "old muddy" near St. Louis next summer?

I'll bet you that Carl Sagan wouldn't put a dime on the chances of the survival of young gators if a breeding pair were put back into the Dismal Swamp in Virginia! How about it Carl, want to go down to the Florida Panhandle coast and count manatees next summer? Should we wait a few years for your global warming effect to melt the Greenland ice cap enough to free the buried airplanes without digging and blasting for them?

- Before you laugh at HAB's theory as I once did, turn a world globe upside-down and take a long look at Antarctica. You will see that the center of the ice mass is greatly eccentric to the center of rotation; 5,000,000 square miles of ice up to two miles deep is a tremendous unbalancing force on a spinning planet. Without an equatorial bulge the only question left to ponder is, how strong are the Rene' Bearings?

HAB believed that we were in the closing moments of this epoch. He believed this because each epoch is only about 3500 years long, and this one has lasted over 7,000 years so far. I don't know what to believe about that, but I do believe that the Earth does "Roll-Over", at fairly frequent intervals, producing the catastrophe that suspends the normal processes of erosion and decay, and leaving behind fossils in the rocks plus even impressions of rain drops, small animal tracks and jelly fish. And when it happens the magnetosphere collapses and lets the deadly radiation of space pour onto whatever sections of the Earth are in daylight.

Few people live through this catastrophe, and those that do revert to tiny tribes of uneducated and uncivilized nomads trying desperately to eke out survival in caves. They will stay in them only until conditions improve. Go ask a spelunker what it's like to make a camp in a cold, damp cave.

Because our Earth periodically "Rolls-Over", this does not mean that an additional astronomical catastrophe is impossible. To this day no one really knows what hit Siberia in 1908. These are natural disasters over which we have absolutely no control. However, there are three more world wide disasters that will try to overwhelm us in the next decade. We already discussed the population problem which AIDS may well ameliorate to some degree. Ameliorate hell! It may do the whole job and wipe out humanity first and human beings second. I have heard that it genetically alters the make-up of the cells, and if that's true there can be no cure. If pushed hard enough we lose our humanity so that human beings may survive.

- The next disaster is called atomic energy, and we were lied to right from the very beginning of the atomic age. Where are the cadmium control rods we were promised? What happened to the cadmium spears to disembowel the atomic beastie when it got fractious? Not if, when? And why did we create death pits from hell that hold a hundred tons of fuel when we were led to believe the reactors would be much smaller? Where is the scientific solution to the problem of the atomic beastie's deadly crap that we were promised fifty years ago? A half-century of empty promises from death wishing control

I truly believe that the regular uranium fuel rods are just batteries that have been created and charged with their deadly energy by the use of coal, water power and oil. If this process were so economically feasible, why does the TVA still use most of the coal mined in the world after almost 50 years of production? If the fuel rods weren't so heavily subsidized we wouldn't have an atomic industry would we, Slick? But because everything is so secret we will never find out, will we Slick?

Why is it, Slick, that everything is still locked up behind the secrecy act of World War II? With every country bigger than my home town of Paterson, NJ operating an experimental reactor, is it any wonder why I say that the only secret left is to keep us bumpkins uninformed.

Accident after accident has racked the industry on a world wide basis. Some of them have resulted in disasters and most were swept under the rug. I also wonder if the big power companies don't have small secret reactors hidden in big buildings on their grounds and maybe even a few big reactors that we haven't been told about yet.

- I have been told that all the power generating reactors in this country are "Boiling Water" types. They are constructed of reinforced concrete built into the shape of a right cylinder with a diameter of about 40 feet and a height of at least 30 feet. Separating the "boiling water" from the concrete is a stainless steel liner that is at least 2 inches thick. They are supposed to have an operating pressure of 560 psi which would load the walls and flat end caps with 80,640 pounds per square foot.

The total pressure trying to separate walls and end caps is over 100 million pounds. Unfortunately, the reactor's stainless steel liner carries little or none of these loads because it is on the inside of the pit leaving only the ferro-concrete to resist these tremendous tensile forces. All tensile loads in this composite material are carried by the steel construction re-bars whose design loads are limited to 20,000 pounds per square inch.

The end caps must resist these loads while acting as a flat plate. The ends cannot be dome shaped because the control rods must be continually moved in and out of the pit. If two intersecting steel beams were used to restrain this load, each would have a bending moment of 3 trillion inch pounds, which would require a section modulus of 150,000 to restrain. No such beam is made.

If we use 4 intersecting beams, the load on each beam is only 25 million pounds, which gives a bending moment of 1.5 trillion, requiring a section modulus of only 75,000. Again there is no such beam. In fact the largest stock beam made is 48 inches, deep 22 inches wide, and weighs 1000 pounds per foot, and this beam's section modulus is only 20,000.

All of this leads me to believe that the true operating pressure of the reactor pit is less than 10 psi. This pressure would be more in line with the name, "Boiling Water". Since the steam turbines which actually turn the generators would be incredibly inefficient at this pressure, the low pressure steam must enter a very large heat converter and heat the water that is returning from the turbines. However, since you can't get either more heat

steam at 560 psi is 479° F. Add the normal atmospheric pressure of 14.7 psi and we get a water temperature of 482° F. Water at 10 psi has a temperature of 240° F and holds only about a third of the energy that it does at 482° F. This means that the conventional fuel provides the other two thirds of the BTU of these power plants. This is an incredible price to pay for poisoning the planet with radioactive wastes for which no one has yet solved the waste disposal problem.

- I also wonder, Slick, if you have secret reactors hidden near major population centers. I can't help but question where the Linden, NJ, power pipe got the 946 megawatts that was being sucked into New York City just before the famous blackout of 1976. Is there a reactor hidden near there? A small reactor? Perhaps near Keasbey?

The Martin's Creek power plant is located just across the Delaware River from Belvidere, NJ. The sign at their entrance proclaims them to be a conventional fuel plant. However, for some obscure reason they built two humongous cooling towers of the type that symbolizes atomic power plants.

The reason that these towers are needed in atomic plants is to allow the reactors a place to spill an amazing amount of heat in a very short time. If a conventional plant gets a little too hot, the safety valves lift, venting the steam to the air and the fuel is instantly shut down. The very nature of the atomic beast called a reactor is that it is always precariously perched on the edge of disaster.

Why would any company put up expensive atomic style cooling tower unless they were running a reactor or planning to run one very soon? Are they fooling you, Slick? Or are you fooling us again?

When you ship the "used" fuel rods, don't the trucks carry little radiation cards and sneak down the highways in the middle of the night? My guess is they carry three drivers and extra fuel tanks and never stop rolling until they reach their destination. Why is that, if everything is so safe? I have been told by a very bitter atomic engineer dying of cancer in New York City that each rod must be entombed in a thick lead coffin and that despite that protection, a motorcyclist tooling by in the opposite direction at 60 miles an hour sustains a small dose. What are the truck drivers getting? How about the civilian cars that drive behind that truck for an hour or so?

If this industry is so safe, why hasn't the Price-Anderson act been revoked? Is it because you know that there is not enough money left in this bleeding, gut-wounded country to pay for a Chernobyl-type accident? And why does the insurance industry absolutely refuse to insure against any damage from any sort of nuclear accident? Price-Anderson's limit of 560 million is peanuts should a Chernobyl-type accident happen up-wind from a major population center. The people who lived would probably wind up with pennies on the dollar, and that's before they paid their attorney.

- Each time you insert a new fuel rod you create a thousand pounds of long lived radioactive materials that simply did not exist before. Each time a little accident forces a plant to vent to air or ground, a little more long lived radiation is added to the environment.

immense amounts of radioactive materials that were not originally stored in mother Earth.

Each time a TMI, Chernobyl, Windscale, Kasli or Chelyabinsk blows up more land and sea is contaminated. That contamination enters more deeply into the food chain, further increasing each of our personal intakes of radio-nuclides. The charts of permissible radiation are all based on external exposure and allow at least a hundred times the true permissible exposure. But when a particle is ingested or inhaled there is no permissible limit.

Right then and there you are 100 % guaranteed a cancerous future. That particle doesn't even have to originate on your continent. A piece of plutonium ash falls on your face during a rain storm and you lick your lips.

The real leaders of this and every country are the heads of old line of super-rich families of international, non-Christian bankers who have no allegiance to any country. They are not the political figureheads we love to hate. What really scares the hell out of me is that these people, our moneyed nobility, are so stupid that they are believing their own atomic propaganda.

Hey guys, listen up, no matter how many billions you have scattered out all over the world, no matter how much food and water you have squirreled away for you, your family and your descendants, you have to be told:

“THERE AIN'T NO PLACE TO HIDE!”

And that also goes for their paid flunkys, the academics and professional scientists who suck up to them. You created this mess and you must finally accept responsibility for it and help straighten it out.

And always remember that ... **you are entitled to believe anything that you want. However, remember that when observational data or experiment conflicts with a theory, no matter how beautiful the theory or how impressive the credentials of its author, a rational person pitches out the theory.**

In '84 I began to write a column for the local North New Jersey local monthly Mensa newsletter, "*Imprint*". I titled it "*One Man's Opinion*", specifically to disconnect my opinions from both Mensa and the newsletter. From the very first column normally liberal-minded, laid-back, Mensans responded with cheers and jeers; the jeers emanating from a vociferous minority. This pattern repeated with many of my subsequent columns. It took almost three years for me to ascertain that I aroused emotions because I was trampling on society's religious, social and scientific sacred cows. I finally came to understand that "knee-jerk" reactions were prompted by the human operating system, which I named the Emotional Belief System (EBS).

On March 19, 1987, I made a significant scientific discovery which I call my "Unproof" of gravity. We moved to Florida and in 1989, I created a series of lectures based on scientific anomalies and certain scientific discoveries I had made over the years. I prepared 12 lectures which I began to giving on a monthly basis to the local Fort Myers area Mensan group.

The first three lectures were presented to an increasingly hostile audience. All the local Mensa officials came to the second and third lectures specifically to shout me down. They used personal attacks while they sat in my living room noshing on the goodies and slurping the soft drinks I had provided. It turned out that even Mensans want to hear the same old fairy tales.

I next decided to transcribe my lectures into a non-fiction book which I self-published. I felt that sooner or later my book would start a ruckus, but I thought that some mediocre minded physics professor, from Jerkwater U, would lead the attack. I never dreamed that it would be Ralph G. Rudolph, the then Chairman of American Mensa.

We had previously corresponded when he wrote a column asking for input on Mensa's national monthly magazine, "*The Bulletin*". Back in 1985, this magazine had agreed to print a sequential series of three articles I had written. They printed two but failed to print the last, which contained the conclusion. Because of this broken promise I sought the Chairman's help. I sent him copies and he became progressively critical of my work while resorting to authority to prove me wrong. Resorting to authority is not scientific. I decided to end the acrimony by sending him a friendly fairy tale about René, the fool who heard, and followed a different drummer.

In February, 1990, I mailed 100 complimentary copies of my book to various people including Rudolph. I also sent checks for ads promoting the book to various Mensa publications.

In March I received a phone call from Mensa headquarters telling me that the ad for the national "*Bulletin*" could not be accepted because I hadn't sent in my dues during the previous four months. The fact that Mensa had already deposited my check for the ad 3 weeks before, or that my membership would not expire until March, 31 made no difference. In addition, non-members are allowed to purchase ads in the "*Bulletin*".

Rudolph also threatened to sue me, ostensibly for trademark infringement over the word "Mensa". I called Allen Nuner, the Mensa ombudsman, only to be informed that I had been cited by the governing committee and, that because a law suit was pending, he couldn't do a thing.

Early in April of 1990, Chairman Rudolph sent me a threatening letter: *"You were warned"* he said, *"... that the name "Mensa" is protected and may NOT be used ... (in) your book title without permission."* *"What is true is that you are in violation of United States law ... you may find, U.S. law is not as forgiving."* *"I would suggest that you immediately show intent to be bound by the law and remove any and all references to Mensa that require authorization."*

All this because I had titled my book, exactly what it had been intended to be, "Mensa Lectures." Close to the end of the month I received a letter from Mensa's Washington DC attorneys, Lane, Aitken & McCann, wherein Mr. McCann officially informed me that I was in violation of Mensa's trademarks and that if I did not *"take immediate steps to halt ... we will conclude that it is your intention to trade on the good will of ... American Mensa. If I do not advise them of my "intentions not later than twenty days following yor (sic) receipt of this letter" they would consider "the institution of legal proceedings"*. Please note "yor" is their typo.

Two days later I received another letter from Chairman Rudolph, wherein he bragged that *"We have already prohibited the publication of certain books."* and went on to describe himself as an inventor who made *"brilliant"* and *"outstanding new advances."* I sent a facetious query to the attorney, McCann, containing a page and line number index for each of the 17 times that I had used the Mensa word in my text. I asked him for a word by word determination which of the forbidden M-words he would legally let me use.

I then drove across Florida to the Fort Lauderdale patent repository to examine trademark law. I found that either their intellectual property attorney, a fellow Mensan, was either bluffing or didn't know what he was talking about. I informed him that not only would I keep on selling my books, but I would henceforth add on the cover, in large red block letters, the words,

"THE BOOK MENSA WANTS STOPPED!"

I accused Rudolph of censorship and told them that I wanted a federal judge to show me where I had broken the law. McCann then responded that *"they are diligently working to prepare a response to your April 23 letter."* He also hoped that I would reconsider my position *"since an amicable resolution ... far more desirable than costly and time consuming litigation."*

In the June issue of the local Mensa newsletter for the Fort Myers group, the local secretary wrote a polemic complaining that I was legally wrong, and also that I was unfair. He compared Mensa to a manufacturing company with a trademarked product. I immediately replied with a letter to the editor in which I explained about trademarks in general and Mensa's collective mark in particular. A collective mark is held common and may be

used by any member without specific permission. Mensa also lied on their original application for trademark. They claimed that "Mensa" was an obscure Latin word. Not so, there is a constellation called Mensa and it is also the flat part of a tooth. The first time a case of this sort hits the courts, American Mensa will not have a trademark left to worry about.

Oddly enough, when I received the June Mensa "Bulletin", it had printed the ad I had sent in to international Mensa in their respective section. However, Mensa lightning struck twice at the same target. In 1985 they had misprinted my home address on the second article. This time they made a similar "mistake" on my address. You can't market any books that way!

In this country, which has more than half of the world's lawyers, I tried in vain to find one to sue Mensa and its officers for a First Amendment violation and libel. I had no success and discovered that in this more peaceful and gentler world in which we now live, I am entitled to all the justice I can pay for ... up front. I eventually quit Mensa and I still have not been sued, nor has the ombudsman ever offered to intervene. The entire episode is disgraceful in an organization of the highly intelligent who openly advertises that Mensa has no opinions. It is also a sad truth that exceptionally bright people are terrified that my iconoclasm might rub off on them.

History

By the late 1500s enough of the Earth had been charted to show that the northern hemisphere contained most of the land mass. The scientists of the time believed that there must be an immense land mass hidden in the southern oceans to maintain the Earth's rotational stability. This hypothetical continent was called Antarctica.

The maps by the end of the 1600s, showed that no matter how massive Antarctica might be, even if it existed, that it would still be too small to balance the northern land masses. Since something was providing rotational stability they theorized that the Earth must have a significant equatorial bulge. Issac Newton in his "*Principia*" eventually "proved" that the radial bulge was 17.1 miles. Today's accepted figure has been reduced to 13.2 miles.

My Interest

I first learned of the Equatorial Bulge when I was a 15 year old high school student. The thought that both bedrock and ocean were piled up to a height of over 13 miles on the equator was fantastic. A few years later I turned over a world globe and saw that all the seas and oceans were hydraulically linked. In that instant the concept of this huge bulge lost all its credibility.

Science claims that the centrifugal force from Earth's rotation warped the molten rocks and that it now holds the miles of water on the equator. As a drop of water from the polar ocean migrates to the equator the force of gravity on the drop beneath it must increase. As that drop reaches the equatorial sea the centrifugal force on it increases and force of gravity upon it must decrease. This process allows the next drop an even easier passage. All the available water from all the seas and oceans should now lie on the equator. What is it that prevents this from happening?

Twenty-five years later, I studied celestial navigation and found that the angle of elevation observed by a sextant sight needed a number of corrections applied before it was usable. The *Nautical Almanac* contains several tables with these corrections. There is a correction for dip. The amount depends of the height of your eye above sea level. At 1 meter it is 1.8 minutes of arc and at 155 feet it is 12.1 minutes. The correction for refraction can be as high as 5.3 minutes at very low elevation sights and decreases to zero if the object sighted is above 81°. There is also a temperature and pressure correction which begins at -6.9 to +6.9 minutes at low elevations and then rapidly decreases to .1 minute of arc at shots of 50° in elevation. Above this, there is no correction.

However, the most surprising thing is that there is no correction for the Equatorial Bulge. And even more surprising is the fact that navigators usually work to a quarter of a mile accuracy no matter which stars they use or where they are on this Earth when they take the sightings.

With the advent of GPS (Global Positioning Systems) every place on Earth should have needed map adjustments of 3 to 5 nautical miles (3.5 to 5.75 statute miles) but that didn't happen. Our Northeast coast which was surveyed two hundred years ago stayed the same.

Not too long ago I created a glass U-tube which I filled with water. I then mounted it vertically on a 45 rpm turn table with one leg in the center of rotation so that the centrifugal force in the outer

leg was equal to that of the Earth's equator. I discovered that the 3 dynes of calculated force raised the water level so slightly that it was imperceptible to the naked eye. Then we are told that this same 3 dynes holds up 13 miles of rock and water.

1987

In the spring of this year, I realized that all star locations are set in a spherical sky and are measured from the pole and this figure is subtracted from 90° and the result is their declination (latitude). If the Earth was also a perfect sphere then the central angle would absolutely define the latitude. However, if the Earth is not a perfect sphere because of the Equatorial bulge I saw that I could use the stars to determine the shift in latitude that must exist. Because of that I also saw that this shift in latitude must be accompanied by an increase in the radius of the small circle of latitude. This increase at each latitude must also comprise some proportional part of the difference found at the equator between the polar and equatorial radii.

The René Method

I finally saw that this was not a complex problem but one that could be solved by plane trigonometry. In the northern hemisphere all the stars, when they pass your longitude (meridian) are both at the peak of their elevation and are directly south. By setting up an observation site whose position was located using a survey grade GPS (Geophysical Positioning System) I could measure the elevation of bright stars with a one second arc theodolite as they culminate. Because of this, the chosen site must provide a clear view of the southern sky.

The Star Select Program

Before you can observe you need to know which of the stars will pass on your meridian on the night you chose and during the hours that you intend to observe. You need to print out the selected stars, the time that they will cross your meridian and the rest of the important data. Your program must also select only those stars bright enough to be easily seen and those whose declinations (latitudes) show that when they cross the meridian they will be higher in elevation than 20° , so that they can be seen over trees and shrubs, and under 60° so that they may be comfortably observed. All of this data must be accurately and selectively copied from the current *Astronomical Almanac* into the program's data bank.

The '97 *Astronomical* and *Nautical Almanacs* contain all the information needed but I had to sort them and copy the data on 32 stars to the data bank. The computer program I wrote prints the information and time of meridian passing for a chosen date at each location. Naturally the year ran out before we could do the sights necessitating purchasing the new editions of both almanacs.

1997

My great thought for the year was to contact several manufacturers of survey gear to see if they would loan me this equipment. Topcon Inc. agreed to locate my site and lend me the theodolite. On the cold clear night of February 21, 1998 I was fortunate enough to get professional surveyor, Juan Almonte, and his helper, Jose DeLeon, to volunteer to operate this modern and very complex instrument to observe the selected star's elevations.

RADIUS OF EARTH GRS80

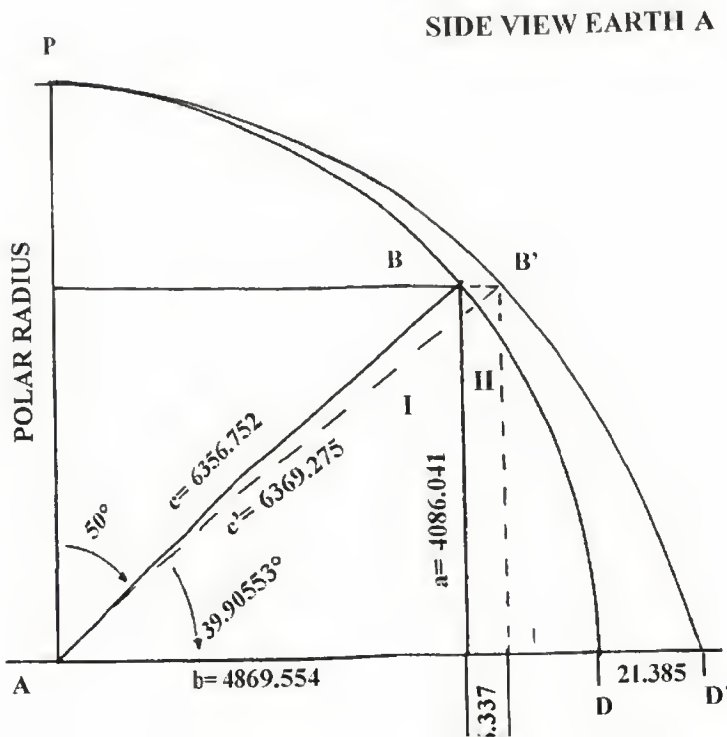
Latitude (°)	Radius (km.)	Latitude (°)	Radius (km.)
90	6356.752	40	6369.275
85	6356.914	35	6371.078
80	6357.394	30	6372.771
75	6358.178	25	6374.302
70	6359.242	20	6375.624
65	6360.556	15	6376.698
60	6362.078	10	6377.489
55	6363.764	05	6377.974
50	6365.562	00	6378.137
45	6367.418		

According to the GRS80 ellipsoidal Earth reference the (Polar radius) $AP = AB' = 6356.752$ km. and the (Equatorial radius) $AD' = 6378.137$ km. The difference (total bulge) $DD' = AD' - AP = 6378.137 - 6356.752 = 21.385$ km.

Assuming a spherical Earth, with this information, and the use of triangle I of the Earth's Side View A below, we can calculate both the radius of the spherical small circle of latitude (AC) and the distance of this plane from the equatorial plane (BC) = (B'C').

$$AC = \cos 40^\circ \times AB = \cos 40^\circ \times 6356.752 = 4869.554 \text{ km.}$$

$$BC = \sin 40^\circ \times AB = \sin 40^\circ \times 6356.752 = 4086.041 \text{ km.}$$



The geodetic radius of 6369.275 km. is chosen from the line marked the 40th latitude on the preceding GRS80 chart. Using triangle II we can find the new central angle B'AC'.

$$\sin B'AC' = 4086.041 / 6369.275 = 39.905533^\circ \text{ therefore angle } BAB' =$$

$$40 - 39.905533 = .09446^\circ \times 60 = \text{therefore angle } BAB' = 5.667 \text{ minutes of arc.}$$

This is the amount of displacement of the latitude which should be subtracted from each stars elevation.

Now we need to calculate AC' to determine BB' which is the radial increase. $AC' =$

$$\cos BAC' \times AB' = \cos 39.905533^\circ \times 6369.275 =$$

$$4885.891 \text{ km. therefore } BB' \text{ (the additional radius)} =$$

$$AC' - AC = 4885.891 - 4869.554 = 16.337 \text{ km.}$$

The observation site was in Surgent Park, Clifton, NJ and the site location determined by survey grade GPS is 40.867741667 N latitude by 74.190508333 W longitude.

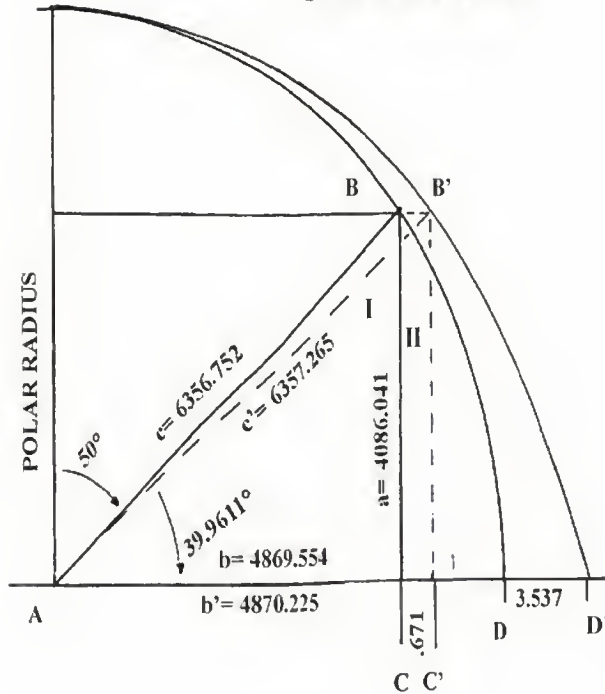
Although every star that passes your zenith can be used, I chose only the six brightest stars of Orion because I didn't need an astronomer to pick them out.

TABLE OF RESULTS

Star (d-m-s)	Cal Colat (d-m-s)	Cal ElOb. (d-m-s)	Colat (d-m-s)	Ob. Elv (d-m-s)	R+T&P (-m)	Cor Elv d-m-s)	Dif. (arc s)
Rigel	49-04-34	40-55-26	49-03-35	40-56-25	1.2	40-55-13	13
Belletr	34-31-22	55-28-38	34-30-55	55-29-05	0.7	55-28-23	15
1852	41-10-22	48-49-38	41-09-20	48-50-40	0.8	48-49-52	14
Alnilam	42-04-28	47-55-32	42-03-43	47-56-17	0.8	47-55-29	03
Alnitak	42-48-58	47-11-58	42-47-47	47-12-13	0.8	47-11-25	33
Betelg	33-27-52	56-32-08	33-27-10	56-32-50	0.6	56-32-14	06

The average angular displacement of the above observations was 14 arc seconds which equals .003888°. As a star approaches the zenith its apparent motion is almost horizontal for an extended period of time. While it is often difficult to determine the exact moment of peak, this is compensated for by the fact that the change in altitude is very small at that time.

To solve for the additional radius we must use Earth Side View B. Triangle 1 is the same as in Earth Side View A.



This time we know by observation that our decrease in angle is equal to 14 seconds which is = $14 / 3600 = .0038888^\circ$. Therefore our central angle of triangle 2 is $B'AC' = 40 - .003888 = 39.9961111^\circ$. For BB' we need to find AB' which = $4086.041 / \sin 39.99611 = 6357.265$ km.

Now we calculate $AC' = \cos 39.99611 \times 6357.265 = 4870.225$ km.

$$BB' = 4870.225 - 4869.554 = .671 \text{ km.}$$

The New Equatorial Radius

Since the bulge was created by the centrifugal force of our rotation it is probable that the bulge of each latitude is in some way proportionate to the bulge at the equator. And since the centrifugal force varies as to the square of the distance from the center of rotation this will involve the squaring of these radii. I set up the following variables:

1. X = the new equatorial radius = ?
2. Y = the old equatorial radius = 6378.137
3. Z = The new 40th parallel radius = $4869.554 + .671 = 4870.225$
4. V = The old 40th parallel radius = $4869.554 + 16.337 = 4883.891$

A proportion of this nature can be obtained by using

$$\frac{X^2}{Z^2} = \frac{Y^2}{V^2}$$

therefore $X = \{(Y^2) \times (Z^2) / (V^2)\}^{.5} =$

$$\{(6378.137^2) \times (4870.225^2) / (4883.890^2)\}^{.5} =$$

$$\{(40680631.590) \times (23719091.550) / (23852391.300)\}^{.5} =$$

$$\{(40680631.590) \times (.994411472)\}^{.5} =$$

$(40453286.289)^{.5} = 6360.289 \text{ km.}$

The new equatorial bulge = the polar radius - the new equatorial radius =

$$6360.289 - 6356.752 = 3.537 \text{ km.}$$

According to this calculation the Equatorial Bulge (3.537) km. is only 1/6 of the accepted figure. Since I realize there are better ways to define an ellipsoid than a proportion, I leave the final determination of the bulge to a mathematician with the training to do the job.

A Heretical Thought

The Earth's dynamic stability may not be provided by the bulge. Perhaps our Earth is cradled and stabilized by subtle electro-magnetic fields created by that immense electrical generator we call our Sun. It is a fact that huge solar storms during the end of August, 1972 slowed our rotation. It is also a fact that before the year was out, something else brought us back up to speed. The forces involved in braking and accelerating the entire Earth is humongous. Where did all this energy come from if not the Sun?

Conclusion

When a beautiful theory collides with ugly observational facts it's time to throw out the theory. Would you rather trust the stars which are never anomalous or pendulums which always become anomalous during solar eclipses? Would you rather trust simple trigonometry in which I have never observed a flaw or theories which are always flawed?

I call on the US Coast & Geodetic people to verify my experiment. They have the people and the equipment. A five degree grid should be applied to the United States and each land intersection should be used as an observing site. I can furnish a star selection printout once I know the exact location, the probable date of observation and the time frame. These printouts are personalized as to location, date and time and I print out seven consecutive nights in case of delay.

I truly believe that had it been a bit warmer that night and had we a bit more help, that we would have obtained a displacement in the range of 3 or 4 arc seconds. This would mean that the Equatorial Bulge is even smaller than this experiment showed.

The old question about our rotational stability surfaces once again. Is 3.539 km. (or even less) sufficient to account for the rotational stability we have? And if not, what provides it? And if this force is not mechanical, are we perhaps cradled in space by the immense electrical fields created by the Sun? I suggest that we may not yet know everything.

* * * * *

On 10/1/98 similar papers were submitted to two science magazines, a few dozen Senators, Representatives, the NSF people and the US Geological survey. Few responded and those that did suggested peer review via science publication.

Catch 22!

GOOD BOOKS TO READ

I placed HAB's book first because his book is my Bible. That is not to say that his book is without error. They exist but I believe his basic theories to be of immense importance to our civilization and perhaps to our continued survival as a species.

Author	Title	Publisher
H.A. Brown	Cataclysms of the Earth	Freeddeeds
William Corliss	Unknown Earth	The Sourcebook Project
	Ancient Man	
	Mysterious Universe	
	Incredible Life	
Milton Monson	Physics is Constipated	Monson Enterprises Inc.
I. Velikovsky	Worlds in Collision	Dell
Goffman & Tamplin	Poisoned Power	Rodale
Pringle & Spigelman	The Nuclear Barons	Avon
Kervran/Abchsera	Biological Transmutations	Swan House
Charles Fort	Fortean Prophecies	Out of print
Daniel Boorstin	The Discoverers	Random House
Jonathon Swift	Gulliver's Travels	Modern
Margaret Cheney	Tesla Man out of time	Prentice Hall
W. H. Peterson	Newton's Clock	Freeman
David Lindly	The End Of Physics	Basic Books
Peter McWilliams	Ain't Nobody's Business If You Do	Prelude Press
Norman Macbeth	Darwin Retried	Gamhit
Broad & Wade	Betrayers of the Truth	Simon/Schluster
Cerf & Navinsky	The Experts Speak	Pantheon
J.& K. Collier	VoteSeam - The Stealing of America	Victoria House Press
Des Griffen	Decent Into Slavery	Emmissary Publications
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NASA MOONED AMERICA !

By Ralph Rene



APPROPRIATE SAYINGS

People always overdo the matter when they attempt deception.

C.D. Warner

Repetition does not transform a lie into a truth. F.D. Roosevelt

A clean glove often hides a dirty hand.

English Proverb

The great masses of the people will more easily fall victims to a big lie than a small one. A.

Hitler

The trouble with lying is that your lie changes slightly
with each telling.

Rene

There is a principle which is a bar against all information, which is proof
against all arguments and which cannot fail to keep a man in everlasting
ignorance — that principle is contempt prior to investigation.

Herbert Spencer

There's a sucker born every minute.

RT. Barnum

INTRODUCTION

Our space shuttles routinely blast off to orbit the Earth. There is not a single doubt that man is in space! However, there is much doubt that any man has ever gone beyond the radiation shield provided by the Van Allen belts. As you will eventually learn from the chapter titled Sunstroke, once beyond that shield space is riven with deadly radiation from the Sun.

The Table of Contents should be on this page. However, since NASA MOONED AMERICA! is a unique book it required a different format. The old adage, "A picture is worth 10,000 words." still holds true. We shall immediately present four pages of NASA-derived photos that will absolutely prove that NASA began to doctor photos three years before the Apollo missions allegedly landed men on the Moon.

THE ZERO G AIRPLANE

This photo in *Carrying The Fire*, a book written by Apollo Astronaut Michael Collins, was snapped by a professional NASA photographer as the plane flew an outside loop to temporarily eliminate gravity. The cabin is padded to protect the occupants from the inevitable fall the instant the loop is terminated. Here, Collins, as he practices space walking, is holding the propulsion rod in his right hand. Note the similarity between this picture and the one on the adjoining page. Note also that the suit's wrinkles deny that it is inflated.



The GEMINI 10 SPACE WALK

This picture was also extracted from Carrying The Fire and was allegedly taken during a space walk on the Gemini 10 mission exactly three years before his Apollo 11 mission to the Moon. NASA claims to have landed the first men on the Moon during this mission. He is shown holding a jet reaction propulsion rod with his left hand.

On page 124 of Heroes In Space by Peter Bond, published in 1987, I discovered that Collins allegedly lost his camera on this space walk. That was a contrived excuse by NASA so they could turn a zero-g picture into one of a spacewalk so no one would ask why he wasn't carrying his camera.

On page 660 of Ain't Nobody's Business If You Do written by Peter Mc Williams we find "the film of Russia's first space walk was later proven to be shot in a studio."



THE SPACEY TWINS # 1

Following an obvious hunch I had negatives made of both previous pictures. Then I had another negative made of the first photo reduced in size and flopped over. Collins is now practicing with his left hand, the same hand he used in his alleged space walk. I then had the "Gemini 10" picture blown up until the figure of Collins was the same size as this one.



THE SPACEY TWINS # 2

I then rotated the blown-up photo clockwise until the propulsion rod made the same angle across the page on both pictures. Even the expression of his face is the same. Collins would have us believe that this picture was taken by a different person many months later. However, the negative of either picture placed over the print of the other produces a point to point coincidence until the binding line at the knee is reached. The missing area was removed when the photo was bound in his book.

If I do the same to the original NASA picture #66-40127 (which took over 18 months to get from NASA), the point to point coincidence continues to the soles of his boots. Why did NASA feel it necessary to fake pictures and lie to us as early as July 1966?



AUTHOR'S NOTES

This book is neither a thesis nor an academic dissertation, nor is it written by an academic expert. It provides a strong body of proof that we never landed men on the Moon. I first reached this conclusion by examination of the photos you have just seen and others, and by dissecting direct quotations from the books of the astronauts involved in the Apollo missions and those of government scientists and engineers.

The subject matter caused most publishers to reject this book out of hand without bothering to read it. Some rejected it because I lack proper academic credentials. In this somewhat Orwellian world many people with formal educations delude themselves into thinking that college degrees are a prerequisite for thought. That's simply not so! I have very credible credentials for what I do. I am an ex-member of Mensa with an IQ in the top one-half % of the population; I am an inventor who was granted, without corporate help, two basic patents. I am a self-taught engineer who has successfully designed beams, trusses, a mobile crane, boats, homes, factories, machinery, etc. I know they are successful because I built them with my own hands.

For over 20-years I was the only disciple of Pete Ross who had one of the finest technical minds on the planet. He was a hands-on person who could devise simple experiments to test almost any hypothesis with the same ease with which he could design and build a machine. He claimed I was one of the smarter monkeys, and he vowed to open my mind. He presented me with logic and examples that many times negated some small part of our accepted scientific beliefs. Frequently, when I left, I had severe headaches from the process.

The only people with the proper credentials to write about the moon hoax are the very ones who participated in it. Michael Collins, Frank Borman, and Buzz Aldrin all wrote books about the Apollo 11 mission- which was a mistake, because those books contain many revealing discrepancies.

This book was originally written because in 1990 NASA intended to take us to Mars the same way they allegedly took us to the Moon. The week before I finished this new edition NASA bravely announced that Martian life was found on a rock they found in the Antarctic. WOW! According to their professionals this rock had smashed into Antarctica 13,000 years ago after being blasted off Mars 17-million years ago by a meteorite. Therefore, since Antarctica accretes ice at the rate of 2 feet per year they must have found it at the 26,000 foot level- which is rather difficult to do, because there is only 10,000 feet of ice there.

To put the icing on the NASA fruitcake, about a week later some lady astronomer announced that she had located the Martian crater from which it was blasted. This means that although the rock was in space with an unstable orbit for 16,987,000 years (it hit us didn't it?) she was able to calculate backwards from the landing site of that rock. For starters she had to know the exact time, direction, and velocity of the landing. Sure she does!

I cite only secondary sources for information. Whistle blowers are never popular, and in the last few decades many of them have worked in either atomic energy or space. Not having a suicidal urge, I refrained from blandly traipsing in the government archives suspiciously searching for information. That would be foolish. Instead, I chose to dissect the work of other serious writers on space and various other NASA programs, plus the astronauts who wrote about their trips to the Moon .

I found no fault with the research of these professional writers because it was mostly well written. I feel their only flaw was in their conclusions, where they neglected to exercise their critical facilities. However, it is easy for sincere, honest men to fall prey to professional and unscrupulous con men especially when the con artists have wrapped themselves in red, white, and blue. I myself was an absolute believer for over 20-years.

On the title page of this book the copyright notice reads, "All rights reserved," etc. The first part is a familiar message appearing in most books. Did all the authors have to get permission to print the same message from one another? How do they know who to get permission from? So far as I know there is no service that keeps track of the users and issues a listing of a hundred thousand previous users. It's very perplexing. However, I took the precaution of adding to the standard notice a statement giving other authors blanket permission to use direct quotes from this book.

Trying to get permission from various publishers is an exercise in futility. I sent certified letters. After five or six weeks had passed, two out of a dozen or so responded. They used the SASH I provided to forward me a questionnaire asking simplistic questions. They wanted to know how much the book would cost, how many copies would be sold, where it would be for sale, etc. I enthusiastically sent back the answers, all of which consisted of "I don't know"! Another publisher informed me that the rights had reverted to an English company which I also contacted. Years have passed, and I never received a single permission.

This dilemma is a fairly new phenomenon on the publishing scene. How can one freely critique a non-fiction book if one needs permission to use quotes which is never granted? By the simple act of not sending permission they keep others vulnerable to lawsuit, and protect their "product" from scrutiny. This is hardly conducive to free inquiry or scholarship. How is the reader to know what the original author actually wrote if one is forbidden to quote him? The original law was supposed to prevent plagiarism; not to protect liars! But if this is the way it is now, I stand ready to defend against their lawsuits.

For example, one of my complaints includes NASA, who has the gall to place the barely legible 'lawyeresque' on government photos. "No copyright is asserted for this photograph. If a recognizable person appears in the photo, use for commercial purposes may infringe on the right of privacy or publicity. It may not be used to state or imply the endorsement by, process or service, or used in any other manner that might mislead. Accordingly, it is requested that if this photograph is used in advertising and other commercial promotion, layout and copy be submitted to NASA prior to release."

NASA admittedly has no copy rights yet they are now trying to impute censorship rights they wish they had. This blurb didn't exist on pictures Bill Kaysing obtained from NASA ten years ago. I must conclude that this blurb was NASA's direct response to Bill Kaysing's original book, *We Never Went To The Moon*, and I can't help but wonder what NASA will do for an encore after reading this book!

My original guess was that every photo used in this book would disappear from their archives. Much to my surprise that didn't happen. Instead, they changed the numbering system and forgot to keep an index of the changes! However, with enough persistence the photographs are still obtainable.

* See NASA photo Addendum

Since 1973 over one billion children all over the world have grown into adults. They've been taught to believe in the fairy tale that we landed men on the Moon. I hope this book will one day banish forever this fanciful tale and relegate the story of NASA's Moon landings to the realm of fraud where it belongs.

Over a decade ago I wrote a column called, "One Man's Opinion", for my local North Jersey Mensa Newsletter "IMPRINT". At the local level, Mensa is primarily a social organization, but the qualification for membership is to score in the top 2 percentile of the population on standard intelligence tests. The North Jersey group used to put out a good newsletter, but I soon discovered that whenever I attacked some sacred cow, particularly a scientific sacred cow, vitriolic knee-jerk responses were triggered from people who were certifiably "intelligent". I finally came to realize that my fellow Mensans were just as subject to failures in logic as are the rest of humankind, myself included.

Our (what I call) emotional belief system, or "EBS" is the sum total of our inner philosophy. This evolves from the sum total of our life experiences. Our personal philosophies are basically emotional because much of what we believe is not necessarily logical. Indeed, it may even be contradictory, but nonetheless we make our decisions and govern our lives accordingly.

Our EBS is implanted in our early childhood by cultural osmosis and authoritarian pronouncements. We are "imprinted" by our society's opinions in the same way a baby duck is imprinted by the first moving object it sees after hatching. Much of this imprinting is due to religion, which is one of the great molders of societies. Then add our early education: what we are taught (or not taught), and our parents' influence. This is the process by which we eventually come to know "right from wrong, good from evil, success from failure, and stool from Shinola shoe polish.

Have you ever wondered how a man from a third-world country wearing a pair of tattered trousers can be so pleased with himself, even though his ribs stand out from hunger? How can he feel so fine knowing that the great number of children he has sired will be as dirt-poor as he is? The reason is that in his society the very act of siring marks him the "success" he is. Logical? No! Emotionally satisfying? Yes!

Our EBS is reinforced by education, most of which takes place before our critical faculties develop or our logic centers mature. Our imprinted opinions can vary from era to era, from country to country, or from county to county. These influences cause our philosophies to vary according to sex, religion, status, occupation, or even physical and mental attributes. As I said before, EBS represents the sum total of our lives. No two lives are identical, so the fringe layers of our inner philosophies are as individualistic as our fingerprints. But unlike our prints, which are fixed at birth, our personal philosophy can and does change somewhat as a response to each day's new experiences being filtered and compared against the old.

For example, as a member of a modern, mostly Christian society in the USA, we are imprinted with the Biblical admonition, "Thou shalt not kill!" However, in warrior societies, young men train hard for the opportunity to chop up their live enemies. Most women today deplore violence, but in warrior societies the women seek out the warriors. I use this dramatic example to deliberately emphasize that the only real difference in people, anywhere and anytime, is to be found in their EBS.

Historically, our western beliefs are to some degree cyclical and oscillate to and fro: sex is bad, sex is great; war is bad, war is good; God is cruel and vindictive, God is just and merciful; children need discipline, discipline is traumatic to kids; the poor are depraved, the poor are deprived; the universe is "natural" or uniformitarian, it is "supernatural" or cataclysmic; etc. In most cases our imprinting controls the operation of our minds for the rest of our lives. It's as if our EBS is to our minds as the operating system is to a computer.

As adults, when our EBS is threatened by contrary facts or logic, we either bias our perception of the facts, ignore them completely, or become filled with irrational rage. Whether longshoreman or philosopher, anything that threatens our rice bowl, pride, prestige, or EBS, will be met with one of the above responses. This is an intensely human reaction.

Our EBS is capable of modification only to a small degree. Change mainly depends on the subject matter and the logic of the person involved. The old saying, "You can't teach an old dog new tricks" derives from this observation, because changes are usually slow and very limited. Neither brain nor computer can function outside the limits imposed, whether it's the EBS in man or the operating system in a computer. EBS governs what we are allowed to think about, what logic we may use for decision making, and what facts we may consider.

Hypnosis is an excellent demonstration of the usually temporary distortion of a person's EBS. The hypnotist, by modification of the subject's sensory input, enables the subject to believe he sees or hears only what the hypnotist commands. The hypnotic subject may also be given input that is contrary to reality or logic, yet he will still accept that input.

Not even science escapes our EBS. If it did, then the Ptolemaic system of astronomy could not have remained in vogue for well over 1,000 years. The philosophers of yesteryear were as intelligent as modern ones. Yet, due to an implanted EBS, they consistently set about proving that all celestial bodies were embedded in hollow crystalline spheres that tinkled as they rotated, each one inside the other, encircling this flat world.

For over a thousand years the basis of the Christian religion was the Old Testament wherein God was depicted as ... a cruel God, a vindictive God, a jealous God! For that same period of time the philosophers believed that our Earth was sculpted by forces generated by incredible volcanoes, humongous waves, and world shaking earthquakes. This was aptly named "Catastrophism", and it was in harmony with the religious thought of that time.

When the New Testament unveiled a just and merciful God, catastrophism began to fade, and newer philosophers, exemplified by Charles Darwin, came to believe that our world was molded by slow and subtle processes. This philosophy, diametrically opposed to the old, is called "Uniformitarianism" and it too is in harmony with the religious thought of our time.

Experts of every denomination, whether religious or scientific, do not always espouse the truth, even if they happen to know it. Harmony between philosophy and religion doesn't necessarily give us the truth. As I said at the beginning, people have great difficulty reconciling facts anomalous to their basic philosophy, or EBS.

The most cohesive adhesives of any society are a common language and common customs which cause the majority of the members of that society to share a common philosophy and EBS. As long as this is the case, that society is fairly stable. To our everlasting disgrace we are now allowing immigrants to dictate to us on both these critical matters.

On the other hand, the destructive forces that tear societies apart are also founded in individual philosophies. When a genuine schism develops, it pits man against man and group against group to such an extent that the society will begin to crumble. Fanaticism is the result of colliding philosophies. It may be necessary to some degree, say, to defeat an enemy. However, once begun it is prone to remain long after the need has disappeared.

Now to my point. I believe I have made a strong and believable case against NASA and their claims to have landed men on the Moon. However, what I have written here is something many people may not want to hear. It challenges that old EBS to be told that that our great father in Washington has lied, stolen from, and cheated his children, and even worse, he has every intention of doing it again and again.

Because we have both an instinctual love for, and a cultural bias toward, our authoritarian government, the information in this book may be hard for some to believe. If it creates too much stress, your EBS may well generate fictional counter data forcing you to make extreme allowances for our government or even forcing you to become hostile toward the book and its author. I couldn't have written all this without acknowledging that emotional fact. However, to date it has been read by thousands of people, and I know of none who still believe the NASA fairy tale.

FOREWORD

In October of '92 I received a large size, full color, glossy, 180 page government publication called *America At The Threshold*. It was sent to me because I had responded a few years before to a NASA solicitation for ideas for space. My best guess is that they originally queried me because I am both a patented inventor and a past member of the high IQ society known as Mensa. While reading the book, I stumbled across my name printed smack dab in the middle of page A-51. It was there because at least one of my ideas had passed the serial scrutiny of a number of special committees of judges. By this time, however, I had become a confirmed skeptic and had ceased to believe in NASA and the CIA, and I was getting mighty suspicious of apple pie Americanism.

Bill Kaysing's book *We Never Went To The Moon* fine-tuned my suspicions of the Moon landings by pointing out things I had missed. For example, the astronauts' boots left deep impressions in the soft dust, but the Lunar Landers left no craters nor did they sink into it. Thousands of photos taken on each of the missions never showed the millions of stars that must be brilliantly visible on the airless Moon.

I also realized that much of the \$40-billion cost for this production had probably been ferreted away, either squandered in the Vietnam "police action" and in the CIA's "secret war" in Laos, or siphoned off to fill the back pockets of the producers. NASA's *America At The Threshold* is cover-to-cover propaganda about "Project Outreach" which I was horrified to discover is NASA's grab for our grandchildren's wallets ostensibly to produce a trillion-dollar MARTIAN HOAX that can bankrupt our already debt-plagued country.

For almost five months my erstwhile publisher constantly questioned NASA. If they hadn't known about this book before, they sure knew then. The 25th (silver) anniversary of the safe return of the crew of the first Moon landing (Apollo 11) came and went without the expected NASA hoopla and propaganda. Instead, the usually unapproachable Apollo astronauts began a series of TV and radio show appearances. I directly attribute this to my book and this man's activities. Unfortunately, he did everything but print the book.

In a prosecutorial mode therefore, I accuse NASA, the CIA, and whatever super-secret group that controls the shadow government of these United States of fraud on the grandest scale imaginable, of murder by arson, and of larceny of over \$40 billion in conjunction with the Apollo program that allegedly landed men on the Moon. I also accuse them of violating a federal law against lobbying by government-funded entities and of serial murder of low-level NASA employees, witnesses, and other citizens who happened to be in the wrong place at the wrong time. Such accusations seem incredible because none of us ever want to believe our governmental father is deceiving us. However, by the end of this book, even the most trusting reader will have no doubt that NASA MOONED AMERICA !

Note: Since I published, some of my readers have gone to great trouble and expense to teach me about the Federal Reserve hoax and the hidden controllers of the world's economy, money, and power. I must now admit that the Apollo hoax is to the Federal Reserve hoax as a firecracker is to an A-bomb.

FX PICTURES

I remember watching the first astronauts land on the Moon and wondering why the TV pictures were so murky. We watched two blurry white ghosts, who did little or nothing while they lurked in the shadow of the Lunar Lander. NASA seemed to have lost 100 years of photographic progress. It was boring, but I believed! During the next few years I caught glimpses of subsequent missions as they flashed in color upon my TV screen, and I believed. The pictures improved with each mission and toward the end of the Apollo program the Moon buggy tore up the Moon's surface while NASA began to talk up a Martian adventure. I still believed in apple pie, the CIA, and NASA.

A few years later I saw the movie "Capricorn One". Its plot involved a CIA hoax about a manned Mars landing. Did I relate that story to our Moon missions? Nah! I still believed in NASA and the CIA. Years later, watching a TV show, I thought I saw the Moon flag ripple on the airless Moon. The worm of suspicion slid into my system.

I then began watching NASA film clips very closely and with less emotion. As those rose-colored glasses slipped lower on my nose I began to notice flaws in the pictures. The astronauts and their backpacks weighed less than 75 pounds on the Moon, yet they left deep footprints in the Moon dust and gravel. The blast of a rocket engine that lowered the 33,000-pound LEM (lander) to the Moon's surface left no crater. And apparently it didn't even blow away the dust beneath the foot pads. Strange! Here on Earth clear footprints usually require some type of wetting agent. There is no wet on the Moon!

Recently I read MOONGATE by William Brian and discovered that the flag actually did ripple during the Apollo 14 flag salute ceremony. That author procured that film clip in 1980 from movie newsreels in Hollywood.

When the Rover spun its wheels, the dirt and gravel sprayed backwards as it would here on Earth. But, in spite of the Moon's much lighter gravity, the dirt hit the surface just about as fast as it would here on Earth. The only tangible proof that we landed on the Moon were the pictures and 840 pounds of Moon rocks. The rocks, without the corroboration of photos, are meaningless, because they could have easily have been fabricated in NASA labs using high temperatures and pressures. I have been told that Werner Von Braun retrieved two cases of rocks using a U.S. Navy ship in the Antarctic years before the Apollo missions. The shipping labels on the cases said "NASA, Houston, Texas".

I began to closely examine every NASA picture that came my way and discovered that almost every picture or TV tape released to the public is flawed in some respect. All the pictures in this book have been published previously. The still pictures were taken with Hasselblads at that time the world's finest camera. As you will shortly see for yourself, they do not ring true whether black and white or color. I had to ask myself, "Why would anyone fake pictures of an event that actually happened?"

That's why I refer to them as "FX" pictures. In movie lore, FX stands for special effects. Where Hollywood employs the best technicians to create magnificently authentic-looking fantasies, apparently NASA employed amateurs who attempted to recreate the bril-

liant sunlight on the Moon by using spotlights in a dark studio. Many of the pictures have diverging or converging shadows which indicate two or more spotlights. The Sun throws only parallel shadows on Earth or on the Moon.

If you look at the backgrounds of most NASA pictures, there is a relatively sharp transition line where anything beyond becomes smooth and featureless. This is a sure sign of a grade Z studio backdrop. Every time the American flag is shown there is a great deal of light on it, even if it is on the shadow side of the Lunar Lander. Also, NASA never filmed either stars or planets. The reason is simple: before the era of computer enhancement the stars would have been impossible to fake accurately enough to fool the world's amateur astronomers.

The original TV pictures we saw were photographic horrors because the astronauts looked like ghosts. Why? Apparently the government-cleared TV cameramen filmed a magnified TV screen. In fact, as you will subsequently learn, there were no live TV transmissions during Apollo 11 & 12. The pictures were intentionally blurred to make us believe that the simulations we saw were real. Note: The pictures reproduced in this book include the date and the NASA number of the picture whenever possible so that you may order them directly from NASA if you wish.

NASA is now preparing to take us to Mars the same way they took us to the Moon. This time a small cadre of computer experts will astound us with photos created by the new digitized computer graphics which didn't exist in 1969. Next time we will have no way of determining the truth.

This new epic is called "Project Outreach" and it will feature new space heroes who will struggle to overcome all obstacles in our one-country race for Mars. The first segments of this serial, which we will be able to watch in the comfort of our living rooms, will show the construction of a permanent space base between Earth and the Moon, and the struggle will be against the cold and pitiless vacuum of space.

Next the astronauts will risk life and limb building the first base on the Moon. It will end with a successful Mars walk and will be the greatest made-for-TV movie ever. The budget — paid by us taxpayers — will be over a trillion dollars stretched out over a decade.

People reading this book have found many other anomalies in these and other NASA photos. I even have a report that when some of the color pictures are scanned the background dots in some areas are a different color which is indicative of a composite photo using pictures made with different brands of film. I have not added to the text all of these reports because that might prevent you from discovering additional flaws yourself.

Deadwood Dick

This picture of Nat Love (Deadwood Dick) was taken in the 1870's.

Compare this with "the Apollo ghosts" below that were allegedly sent back from the Apollo 11 mission.

Both astronauts are in sunlight, but one reflects blinding white light and the other is strangely dark.



Apollo Ghosts



The Gemini Fireproof Antenna

Wally Schirra and Tom Stafford are about to be rescued after splash-down on Gemini 6A. They claim to have made a rendezvous in space with Borman and Lovell, who were flying Gemini 7. From the front of the capsule we see the base of a long fiberglass whip antenna. It is completely undamaged, and it is not retractable, as the capsule cabin contains no antenna well.

The capsules came from the factory gleaming with a silver film (which is charred by temperatures over 5000 degrees during re-entry). Anything not shielded by the forward ablative coating will burn up. None of the other Gemini capsules showed whip antennas after splash-down.

This antenna responds to frequencies not used in space and would only be of value in locating the capsule after it landed. Once the capsule was found it would have no further value. Why do NASA apologists argue that the rescue divers installed it after it was in the water? The only logical conclusion left is that this capsule never re-entered from space but was parachuted from a CIA cargo plane.



Cover Photo

NASA's official title of the picture on the cover is "Astronaut Collecting Lunar Samples, Apollo XII". NASA contends that Pete Conrad took it of Al Bean on 10/20/69. The NASA number is AS12-49-7278.

At any one time there were only two men on the Moon. Yet — as reflected in Bean's face-plate under magnification, Conrad is carrying no camera. Conrad has his left arm straight down and his right elbow is down with his hand near his navel. We see a flat background surface with the horizon sharply delineated. On Bean's visor we see Conrad and the horizon behind him closely matching the real one. If we examine Bean's shadow, as reflected in his visor, we know by its length that he is less than 10-feet away from Conrad. Therefore, we know there is no steep hill between them. But the camera on Bean's chest is being viewed from at least 8-feet above the ground. Since there is no camera stand reflected between Bean and Conrad either a camera boom was used or the man on the Moon is 10-feet tall, invisible and took this picture.

Here is a list of other anomalies:

1. On the upper left edge are two structural pieces that slant toward the ground and seem to be holding a spotlight. The ground between that spotlight and Bean is unevenly lit, but the brightest area is around him. This is consistent with a spotlight. The ground in back of Conrad is extremely well lit which is also consistent with studio spotlights. Sunlight in a place without clouds, trees, or hills is uniform.
2. Bean is holding in his right hand a polished piece of metal tubing that has no shadow side. Was a flash used in sunlight that is 20% brighter than Earth?
3. There is a second shadow that extends from Conrad forward and to his right. It is almost 180-degrees away from his regular shadow. NASA never told us that our solar system has two suns.

I consider this picture to be one of the most flawed of NASA's Apollo Project's filmed documentation because there are so many things wrong with it. A picture is composed only of light and shadow and by definition the shadow must be on the shady side away from the light source.



4/22/72 AS16-107-17446

NASA MOONED AMERICA! / RENE

The Backdrop Begins

NASA titled this photo "Apollo XVI on the Moon." Just past the object of interest the landscape becomes featureless. As in most NASA photos the background begins abruptly. NASA states that this is because of the Moon's smaller diameter. Optical perspective is not dependent on the distance to the horizon. Charles Duke was standing next to a geological marvel and never saw it. Unless, of course, the marvel we are seeing here is nothing more than an amateurish backdrop for a simulated shot taken in a secret government movie studio. One NASA apologist's claim to believe that the Rover is on a cliff edge. NASA claims it chose each landing zone carefully to avoid cliffs and craters.

The large rock in the left foreground is clearly marked with a big capital "C". The bottom right corner has a crease similar to that caused by wetting a folded newspaper. This makes it a showbiz "flap" rock, which the people who work in Hollywood studios throw at visitors. They used to be made from wet newspaper and paste and showed similar flaps. Stage rocks are usually placed by stage hands over similarly lettered markers positioned by the set designer. Did NASA really carry fake boulders and stage hands onto the Moon?

The shadows of Astronaut and the Rover are in a different direction than the rocks nearer the camera. Sunlight casts parallel shadows. I have no idea how this was accomplished. Notice also that the Rover has left tracks that show an abrupt right angle turn. Have you ever seen any vehicle that could do that? It looks like stage hands lifted up the front and dragged the Rover around to the left just before this picture was taken. Only a two wheeled hand truck can leave such a track.

Notice the sharp footprints and tire tracks. A man who has tracked various animals in the Australian desert pointed out that clear tracks in deep dust require moisture; otherwise they form only indistinct depressions. I've done some tracking of my own and I instantly knew he was right. The only clear tracks we can leave on a sand beach, no matter if the sand is fine or coarse, is near the water. There are some ultra fine man-made materials that will take a track at normal temperatures but I know of no dry natural soil here on Earth that has that property.

There can be no moisture on the Moon. Especially during the daytime when surface temperatures are about 250 degrees. Couple this with the vacuum of space (which drastically lowers the boiling point) and any water in the dirt would boil away in seconds. And yet, every picture allegedly taken on the Moon shows clear footprints.

Another anomaly is found in the fact that the upright gnomon is casting a very dark shadow right next to the "C" rock that is thinner than the diameter of the gnomon. Yet the shadow of the legs are about the same size as the legs.

The Rover has an antenna at the front end. The camera has placed range finding cross-hairs on the photo. The top of the Rover's antenna was super-imposed over the second cross from the top left. If NASA landed men on the Moon why were the photos faked? On your last vacation, did you go to a studio and simulate the pictures you took?



4/21/72 AS16-113-18339

NASA MOONED AMERICA! / RENE'

Me And My Shadow

NASA claims this picture was also taken on the Apollo 16 mission. Notice that the surface of the hill in the background is not very bright. It is shadowed although there are no Moon clouds! That hill can only be a part of a very inferior and amateurish backdrop.

The shadow from the skinny flag pole is clearly visible at its base. If the thickness of that shadow is measured and compared with the diameter of the pole there is another reduction in size of an objects shadow. If that pole shadow is followed it terminates in the very thin shadow of the flag itself.

Inspection shows that the flag itself is lying away from the Sun. In the background is the LEM which is 32 feet in diameter. The LEM also has a very skinny shadow hardly thicker than the flag. Here on Earth shadows from the Sun are always proportional to the size of the object.

Nearer the foreground is a long dark line. Close inspection reveals it to be a line cord. It should lead back to the LEM but it disappears at the rock near the flag pole. If this cord was laid down on a crowded beach it would take hours before the foot traffic could bury it to this extent. There were supposed to be only two men on the Moon at any time. How many stage hands tramped about on this set to accidentally bury this line?

Since the flag is away from the Sun why is the side of it so brilliantly lit? Could there be another source of light? Did they carry power-hungry and heavy spotlights to the Moon? The LEM had only batteries! And why would you need spotlights where the Sun is 20 % brighter than here on Earth?

John Young has leaped about 18 inches in the air. We all know that white men can't jump but this is ridiculous. Under the Moon's 1/6 gravity his weight (suit included) was only 65 pounds. I am crippled and weigh over 200 pounds but I can jump 4 inches high. On the Moon this would be over 2 feet. You would think that youthful, physically fit Astronauts with "The Right Stuff could jump higher than this.

NASA apologists keep insisting that the flag shadow is his. However, for this to be true that shadow would also have to be much fatter. But what really takes the Booby Prize, is that he has out-jumped his own shadow. Since even a gazelle can't out jump its shadow either light moves much slower on the Moon or men with "The "Right Stuff can move faster than light. However, no matter how you cut the cake, Young still has no shadow! The only solution to this problem is that he, just like that Rover antenna, was also super-imposed.



2/5/71 AS14-66-9277

NASA MOONED AMERICA! / RENE'

No Crater

This picture is titled "Apollo XIV on the Moon." Notice the footprints in the soft Moon dust. They extend under the LEM almost to the rocket engine's shroud. The LEM weighed almost 17 tons and had only one central rocket to decelerate this mass during landing. The engine had a thrust of 10,500 pounds, and even if the nozzle throat had a diameter of 3 feet, the exhaust pressure would have been close to 10 psi (pounds per square inch).

A common leaf blower generates about 1/2 psi yet it will blow away loose dirt and dig a crater in the ground. This monster not only landed without digging a crater but it didn't even blow away the loose dust. Without atmosphere to hinder it, can you imagine what the blast from a large rocket engine would do to dust and small rocks in the vacuum of space? Yet we find crystal clear footprints in the dust at the extreme center foreground.

The rocket shroud is in pristine condition. It's not discolored and shows no signs of having been heated. How can a rocket engine fire and not heat up the shroud? The engine itself appears to be positioned off-center to the front left of the LEM. If anyone had dared to fire this stupid looking and ungainly machine as it descended, the eccentric position of the nozzle would have exerted an unstabilizing torque and caused the LEM to pinwheel onto the Moon's surface no matter how many tiny thrusters were fired trying to keep it vertical.

Here on Earth our fluorescent atmosphere shields us from the direct rays of the Sun and scatters photons in every direction, giving some light to even well-shadowed surfaces. The word fluorescent is not used lightly. The vacuum on the Moon eliminates these effects. Notice how well you can read the words "UNITED STATES" on the shadow side of the LEM! On page 241 of Aldrin's *Men From Earth*, he clearly states, "... with no atmosphere, there was absolutely no refracted light..." Therefore there had to be another source of light. This is consistent with other NASA photos that always show brightly lit flags and the words "UNITED STATES".

The foot pad on the extreme right disappears into the picture's border. Take a pencil and sketch in the rest of the leg and the foot pad. Then duplicate the foot pad shadow we see on the left leg. Why isn't that shadow on the page? Also, the shadow of the landing strut in the foreground has a shadow less than half its diameter.

Last and most important is that the left side of the background is brilliantly lit while the right side is dim. Is this another unreported geological miracle where reflective white dirt meets dull red dirt in a straight line? Or is this photo just another simulation?

Hero's Medal

Although a number of Russians preceded him, Alan Shepard was the first American to enter space.

NASA created a special "distinguished service medal", and President Kennedy pinned it on. Look at this man grin!

5/6/1963 S-63-6268

Glum Chums

Is this the look of three men who had just returned from being the first men to walk on the Moon? The Apollo 11 crew have just returned to Earth and are talking to President Nixon from quarantine. This group is definitely not a bunch of happy campers. Could they feel ashamed about something they didn't do?

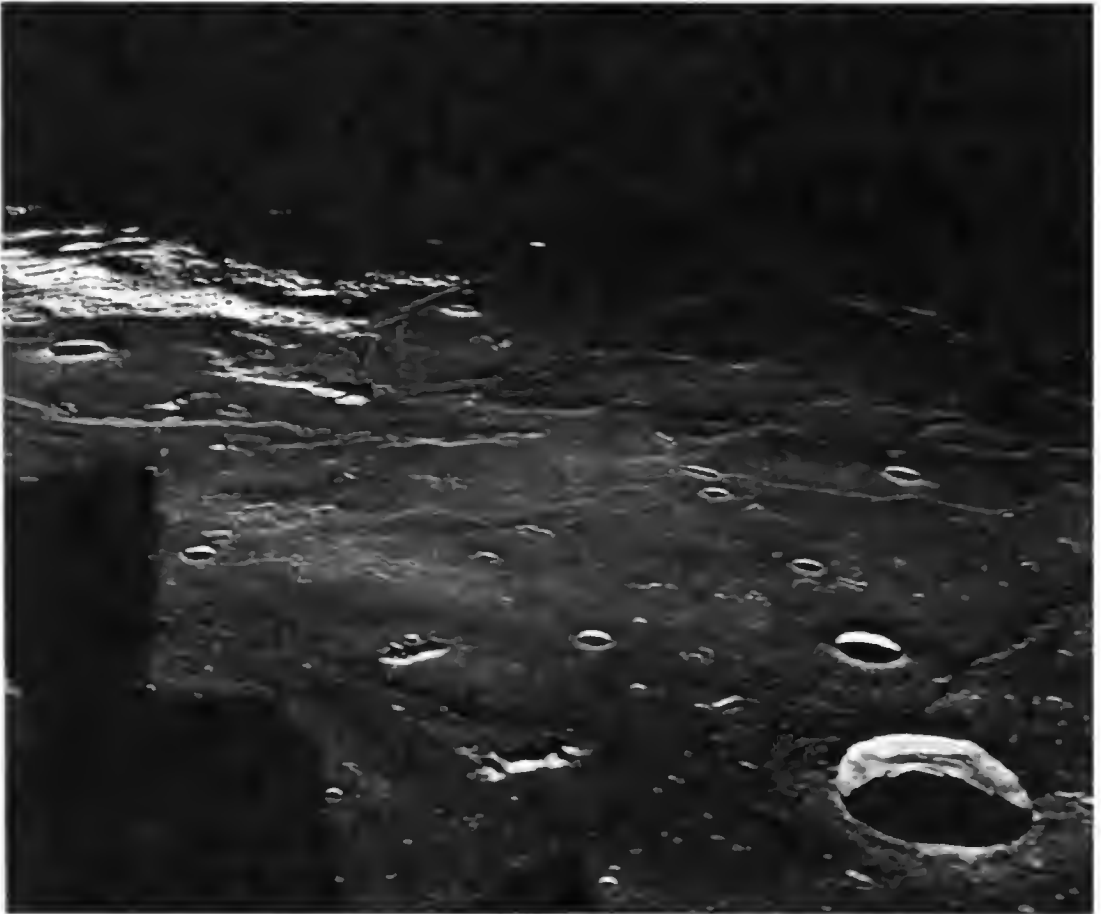


NASA MOONED AMERICA! / Rene

The Shadow Shows

This unbelievable picture, allegedly taken from the Apollo 11 command capsule, is the apex of chicanery. Despite this, I have seen it in at least three books including Collins' *Carrying The Fire*, where he claims that the picture is of the Sea of Tranquility and shows the landing zone. The shadow in the lower left corner is supposed to be from the engine shroud whose diameter is 8.5 feet as it orbits 69 nautical miles (79 statute miles) above the Moon. A few readers have told me that this shadow's shape matches the LEM's small directional thrusters which are 6 inches in diameter. I agree!

The sun, however, has a diameter and the rays emitted from either side of it tend to cancel out sharp or definite shadows in some distance considerably less than 79 miles. Commercial airliners that are ten times larger fly a few thousand feet over our heads, yet no one ever sees a definitive shadow. Apparently we have an astronaut who casts no shadow and an engine nozzle or, worse yet, a small thruster that casts a shadow over 79 miles away. What kind of a wondrous place is this Moon of ours?



7/20/69 NASA NO. AS11-37-5437

THE TV COVERAGE

The one word never mentioned during the very first moon landing was the word "simulation". Given the temper of the times, it might have produced full blown revolution. The simulation story is relatively recent and probably a direct response by NASA apologists to Bill Kaysing's original detective work. Why would NASA have needed to use any simulated film if they really landed on the Moon? Looking back at it now I can see that every photo was simulated, but back then we believed that it was the distance that screwed up the coverage. There had to be some reason, because we knew NASA had the finest equipment.

The pictures were dark one second and bright the next. A single picture might show one astronaut blazing with light while his buddy, 10 feet away and also in the unfiltered sunlight, would be troll black. Most of the pictures resembled those of night scenes on a "grade Z" science fiction flick where the buxom girl, whose bodice has been ripped by the aliens, keeps disappearing into the gloom just before we can get a good look.

The Blurry Pictures

The blurry white ghosts and the black trolls were busy doing unusual boring things while speaking NASA-ese at each other. "Did you put up the poop-ding on ramus?" "No, the clavrick has exceeded port 19!"

The astronauts were alternately hiding under the shadow of that ungainly and exceedingly ugly LEM, and then popping out into the sunlight to gambol around. They were blindingly white one second and dark the next, and not one picture was ever crisp. It was as if a blurry eraser had been applied.

Malicious Intent -

The lousy pictures were intentional! Indeed, this was imperative so that no one could critically examine those first pictures when our critical facilities were at their peak. Once a premise is accepted by our EBS, we hardly ever re-examine it.

It was years before I suspected NASA of fraud and thought to re-examine the pictures for the first few missions. By that time they were hard to find, as TV stations preferred the clearer color shots allegedly taken on later missions. The pictures were just more obfuscation used by NASA to keep its gravy train rolling through this land that once was flowing with milk and honey.

The Big Screen

Much of the blurring was specifically induced by NASA's insistence that the TV networks had to broadcast directly from a huge TV screen in the operations room. In other words, they had to take a picture of a poorly-magnified picture! Fortunately for NASA, the major networks accepted this mandate. Also, even more fortunate, in 1969 there were no TV screens that large, no matter how much you could spend. If you wanted a bigger screen you bought an optical system that strapped onto a standard set and used mirrors and lenses

to magnify the picture. The price paid was in clarity. First, there was a more than proportional loss in brilliance of the screen. And second, the picture was composed of giant grains with the inevitable result of dim blurry pictures.

Within 72 hours after the splashdown of the Apollo 11, Bantam Books in conjunction with the New York Times, had the presses running on John Noble Wilford's *We Reach The Moon*. On the inside front cover is one of those blurry pictures that show Neil Armstrong's foot about to hit the Moon. The only way to take that shot was by either having a moon photographer lying on his belly or by having a camera attached to the adjacent landing leg. Mr. Wilford, according to his book, was an insider. Here is a quote found on the publishers page.

ABOUT THE AUTHOR

JOHN NOBLE WILFORD is the leading aerospace reporter for The New York Times. He has covered every phase of the space program and every Apollo shot leading up to the epochal moon landing. *WE REACH THE MOON* is Mr. Wilford's definitive account of the incredible space achievement, from its beginnings with the faint beep-beep of Sputnik to its conclusion at the Apollo 11 splashdown.

On the frontispiece adjacent to this picture is a boxed blurb that reads:

ABOUT THE COVER PHOTOGRAPHS

Front cover photograph (NASA): left to right-Neil A. Armstrong, Michael Collins and Edwin E. Aldrin, Jr.

Inside cover photographs were taken directly from television screens, which provided the first visual documentation that man had landed on the moon. A: Neil Armstrong steps onto the surface of the moon. B: Buzz Aldrin stands on the moon. C: First moonscape taken by man on moon. D: Aldrin and Armstrong in front of the module on the moon. E: The American flag goes up on the moon.

Now why did NASA institute this "picture-of-a-picture" policy when they easily could have popped in some coaxial connectors and jacks so that the TV crews could take copies of the broadcasts directly before optical magnification destroyed the originals? Oversight? Extreme stupidity? Or the cunning of the fox loose in the chicken house?

Why didn't the experienced TV news people show the NASA technicians how simple it would be to correct the pictures? Why did the networks let them get away with this? Why didn't they take their complaints to the public if NASA officials refused to listen? And why didn't they get direct copies of the clearer pictures which NASA must have taped as they arrived in Houston (whether such pictures were actually from the Moon or previously prepared simulations)? Even after all these years, we have never seen the clear pictures which NASA must have stored in their archives. Why has the media seldom attacked this sacred

cow called NASA?

More on TV

At the time I wasn't sure whether Apollo 12 (from 11/14/69 to 11/24/69) was "live" or not because I wasn't excitedly waiting in line to see more blurry exercises. I dare say neither was anyone else. Thinking back on it, almost everybody had the same complaint -lousy pictures. According to my recent research, however, there were no live TV broadcasts of either Apollo 11 or Apollo 12. If true, this means that the incredible space achievement we watched was a ghastly, ghostly joke perpetrated by those masters of the hoax — NASA.

Richard Lewis writes about the Apollo 14 landing: "Mitchell then descended to the surface and Shepard collected a contingency sample about 25 feet from the LM. He then set up the television camera on a tripod about 100 feet away. He was careful to keep the lens away from the sun, which was what had blinded the Apollo 12 camera. Now, for the first time, there would be a televised record of man on the Moon." ¹ Gee! Imagine that: a guy with "The Right Stuff", after all that training, doing a dumb thing like pointing a TV camera directly at the Sun. Hard to believe!

So, what were they showing? We must have watched simulations! Not only did I not realize that at the time; no one else I know did either. Did you? But we were only taxpaying outsiders. The bigger fools seem to be the professionals like John Wilford, The New York Times, and the TV journalists. They fell for it hook, line, and sinker.

To add insult to injury the later pictures were still bad. Richard Lewis wrote about the Apollo 14 TV: "In the television pictures that came to Earth from 238,000 miles away, the explorers looked like bulky white ghosts against a black sky, cavorting about a strange landscape of dunes and craters ..." ² Sounds the same as the first pictures that the astronauts didn't take during the Apollo 11 and Apollo 12 missions.

In Footprints on the Moon, the authors have this to say about Armstrong as he descended the Lander's ladder. "Suddenly he was standing on the porch of Eagle, beginning tentative steps down the nine rungs of the ladder. On the way he pulled a lanyard releasing an equipment shelf and a television camera." ³ Why do I get the feeling that NASA will always tell whatever lie is handy?

This is government newspeak at its peak. When is the first picture, the first picture? The only pictures that NASA didn't dare fake (and eliminated entirely) were pictures of the stars and planets. NASA realized that millions of amateur and professional astronomers around the world would see these pictures, and if there were any discrepancies NASA's Moon cat would surely claw out from NASA's bag of tricks.

NASA did build a planetarium at their secret Mercury, Nevada base and attempted to use it for faking the stars. But it didn't work. A planetarium projector uses a bright lamp bulb inside a sphere that is pierced to allow dots of light to radiate up to the hemispherical roof of the circular building. The dome must be painted with a highly reflective paint so that the "stars" are visible.

Unfortunately for NASA, planetariums only work in the dark. One small spotlight completely destroys the effect. How could you film the astronauts and their equipment in the blazing sunlight on the Moon if you dared not light the set with arc lights?

If NASA had pretended to send the astronauts into a lunar night, the problem would have been worse, since the LEM used only batteries for power, and batteries don't run spotlights very long. Leave your headlights on for a while when your car is parked if you think I jest. And car headlights are birthday candles compared to serious spotlights. So after spending a fortune (ours) to build that planetarium, they found it was unusable. Then they were reduced to obfuscating the brilliant stars and planets of space by having the astronauts pronounce them as dim and fuzzy, and they were forced to maintain that lie down through the years. Today, a computer using enhancement and digitized graphics could fool the world's greatest field astronomer. But this is now, and that was then.

Added note: Aron Ranen of Third Wave Media who was funded by a grant that probably came from NASA, made a video that was supposed to prove that NASA did, indeed, go to the Moon. He was received with open arms by NASA, and in creating his video titled "DID WE GO?" discovered that all the audio tapes from the Apollo missions had disappeared.

Jim Collier, before he died, told me that the plans to the Rover, the LEM, and the huge engines that powered the Apollo space craft are also missing. I wonder what the odds are against the contractors losing the prints and NASA losing both prints and tapes.

1. p. 187, THE VOYAGES OF APOLLO, "Lewis", 1974, Quadrangle
2. p. 188, Ibid.
3. p. 206, FOOTPRINTS ON THE MOON, "Barbour", 1969, The Associated Press

ASP

The asp is a small, venomous cobra-type snake found in Egypt. It is historically famous for being Cleopatra's accomplice in suicide. She chose to clasp the asp, and the little viper accommodated her by nipping her breast. Like Cleopatra, we must be suicidal too, because we have been grasping another sneaky snake to our Federal breast for over thirty years. It is also doing its aspy thing. This ASP is an acronym for "Apollo Simulation Project", which was created in 1961 and operated by the DIA (Defense Intelligence Agency) to "help" NASA with their technical problems by establishing a totally simulated moon mission.¹

ASP was a total secrecy project along the same lines as the Manhattan Project of World War II. The Manhattan Project ultimately employed some 300,000 people and hardly a word was leaked out. It served as a proving ground for security techniques and personnel manipulation on a broad-based program that to this day hasn't failed. To have gone to this much trouble that early in the program is a sure sign that NASA knew that no one was going to the Moon.

It is difficult for the average person to believe in a huge governmental conspiracy because they know the difficulty people have in keeping small secrets. They visualize a few thousand people involved and believe it is virtually impossible to keep them quiet indefinitely. Anyone who knows about Air America, the CIA-controlled largest commercial air fleet in the world, should hardly be surprised. As Bill Kaysing says, "Air America is noted for its two distinct types of Alumni: The silent and the silenced."²

The ASP base was constructed on land controlled by the (then) Atomic Energy Commission and surrounded by other military bases. Scattered throughout these arid Moon-like properties near Mercury, Nevada are super-secret site after secret site. Top level management was provided by CIA spooks. Interface personnel were hired as needed and paid top dollar and then released as necessary (with the required "never tell" NASA warnings backed by the muscle of the CIA).

Picture this: a cavern on that base with an elaborate sound stage, code named Copernicus, built and outfitted with everything necessary to simulate moon pictures. It was named by someone with little knowledge of history after a crater on the Moon. That crater was named after an early seeker of cosmic truth, Nicolaus Copernicus, so this cognomen for this nefarious studio is puzzling. However, there may be something in universal justice because this studio soon became "Cuss" in the base vernacular because of the problems that developed after CIA amateurs tried to make Hollywood-style FX.³

"Also installed at the "Cuss" base was the true master control center of which the so-called Mission Control and the Spacecraft Center at Houston were merely satellites or slaves. The master control of Cuss (MASCONCULL) collected all data, programmed it into a computer which then coordinated the entire moon landing simulation. Since all releases were by well-edited tape, there was no chance of a bloop. Again, the total control of news by the American corporate state set an effective precedent for the totally controlled output of MASCONCULL. From prelaunch countdown to the final descent to the ocean, all sound and

video transmissions emanated from the flawless and mechanistic heart of a specially modified IBM 370-C computer."

If you don't believe that some central news agency distributes the news to the TV stations then channel surf on the major channels during the six o'clock or eleven o'clock news. More often than not, the same story is being broadcast at the same time, give or take a few ticks of the clock.

Today we would have no problem with the idea that a huge mainframe computer could control and handle an entire show of this magnitude from prerecorded tapes. Had anyone suggested the idea of deceit in 1969, people would have thought the person to be crazy. However, the Apollo serials were successfully aired, proving that an IBM 370-C computer could and did handle the show from prerecorded tapes, radio data, messages, TV pictures, etc.

The astronauts were very carefully led into the intrigue one at a time and were told only as much as was required for their mission. They could either go along or get along. If there was even a doubt as to their total loyalty to the program, the dissidents were sidetracked out of the mainstream.

After the Grissom-Chaffee-White incineration, I hardly think anyone would not have joined. One hand offered fame, money and power. The other hand offered a Federal funny farm or death. In this world there are peaceful nations, military nations, and police states. We are the only one that brags we are the first but have always been the second and are now rapidly evolving into the third.

The news and TV shows indicate every day that our government confiscates property and even "arrests" money, cars, houses, and other inanimate objects of value on the mere presumption of guilt as reparations in the drug war. This, to my mind, is martial law at its worst, but our press never mentions it to us.

Bill Kaysing, a former employee of Rocketdyne, reports that the Saturn 5 Moon rockets held a cluster of five B-1 engines instead of the more powerful, but totally unreliable, F-1 engines. Each B-1 produced a thrust of 150,000 pounds while a single F-1 produced ten times as much. Had this substitution not been made, the moon rocket "in its designed form would have weighed 6,000,000 pounds, or 3,000 tons fully loaded. This is the weight of a U.S. naval destroyer, further pointing out the total impracticality of the venture."⁵

Thus, the stripped down moon rockets that actually blasted off from Kennedy weighed about 300,000 pounds and were light enough for the five B-1's to get airborne. Here Bill Kaysing and I part company, because he believes that the astronauts were never launched. I say that they had to go with the big bird. The very danger of explosion was the reason. If a rocket had blown away on the pad then NASA would have had three live astronauts to deal with instead of three atomized corpses.

Such a type of accident would have created immense problems for everyone. Think how nervous it would have made the surviving astronauts knowing that their buddies were whacked to keep a secret? Surely one of them would have run to the press, to avoid the possibility of a similar fate in the near future. It's one thing to die in a flight or a fight. That's a bit

glamorous. But to be slaughtered like a sheep is something else again. Had NASA done it any other way, the rest of the astronauts would have panicked. Remember, these were test and combat fighter pilots who took risks as often as necessary. Just as long as there was a good chance of a liftoff they would risk the ride. Also, they had been riding the B-1 engines for years during the Gemini Program.

I believe that each mission was on sequential tapes and programmed into the computer weeks before the liftoff. The immense number of simulations took months to create, and probably more time to carefully edit the simulations and weave them into the fabric of the next Apollo mission.

Once the simulations were prepared, all that was left was to provide the distraction that is vital to con-man and magician alike just before the deception begins. In this case it was the public launching at Cape Canaveral (now Cape Kennedy) that provided all the flame, fury and flash that any magician could ever ask for. It focused the attention of billions of people around the world on the launch while diverting us from the scam.

The next time the ASP strikes it will be to take us to Mars via digitized graphics and computer enhancements, and no one will be able to prove it's not real.

1. p. 54, WE NEVER WENT TO THE MOON, "Kaysing", 1981, Desert Publication
2. p. 61, Ibid.
3. p. 62, Ibid.
4. p. 63, Ibid.
5. p. 63, Ibid.

NASA'S HISTORY & POLITICS

A little over thirty years ago the popular new President, John Kennedy, was besieged by events completely beyond his control. Castro had taken Cuba away from a tyrant named Battista. Both the Mafia and the CIA were frothing at the mouth, the Mafia because it had lost a splendid source of casino income, and the CIA because a ragamuffin Cuban Communist and his army had taken power on an island a few miles off our coast.

Kennedy had barely settled into the oval office when the Russians followed up with their Sputnik success, and, on April 12, 1961, sent Yuri Gagarin into orbit on Vostok 1 for 108 minutes. If that wasn't enough, that same week the CIA botched the Bay of Pigs landing. Led by the CIA, a ragtag battalion of Cuban expatriots was supposed to reconquer Cuba and make it safe for democracy. Also involved were the CIA and the CIA's old World War II partners, the Mafia.

On May 25, 1961 Kennedy broke Presidential precedent and delivered a State of the Union message to a joint session of Congress. It was necessitated by racial tensions, CIA problems in Laos (later called our secret war), CIA problems with Cuba, and a whole gamut of other foreign entanglements — all involving the CIA.

Kennedy sought a national distraction. He also hoped to regain American prestige by asking Congress to drastically expand the space budget at a time when Congress was actually decreasing military spending and trying to cut back on other expenditures. Some sections of his speech are printed below.

"I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decision or marshalled the national resources for such leadership. We have never specified long-range goals on an urgent time schedule; or managed our resources and our time so as to insure their fulfillment.

Recognizing the head start obtained by the Soviets with their large rocket engines, which gave them many months of lead time, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts of our own.

For while we cannot guarantee that we will one day be first, we can guarantee that any failure to make this effort will make us last.

We take the additional risk of making it in full view of the world. But as shown by the feat of Astronaut Shepard, this very risk enhances our stature when we are successful.

But this is not merely a race. Space is open to us now. And our eagerness to share its meaning is not governed by the efforts of others. We got into space because whatever mankind must undertake, free men must fully share.

I therefore ask this Congress, above and beyond the increases I have earlier requested for space activity, to provide the funds which are needed to meet the following national goals: First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to earth. No single space project in this period will be more impressive to mankind or more important for the long-range exploration of space."

The space project became extremely political the instant Sputnik passed over our heads emitting annoying pings. The pings were perceived as the sound of danger, evoking memories of the whistles attached to World War II bombs. And just like the whistles on those bombs, the pings were psychological warfare. That was how we entered the space race.

General Eisenhower was the Supreme Commander of the Allied forces during World War II before he became our President. Under pressure fueled by Sputnik, he signed an executive order that mutated a quiet aircraft and design facility called the National Advisory Committee for Aeronautics (NACA) into what would become an insatiable monster called NASA. Ike wasn't too thrilled with the projected costs, and although he wanted our space program in civilian hands, he directed that only military test pilots be allowed to fly the coming rockets.

In January 1959 NASA began a search for the chosen few who would become our first astronauts. They scrutinized the military records of all the current test pilots and then culled one hundred and ten names from the various lists. Next, a committee whittled the list down to thirty-two and those men underwent extensive tests and interviews until only seven remained. These were the men with "The Right Stuff!"

When Republican born and bred President Eisenhower left office, he uncharacteristically tried to warn us about the military-industrial complex but we paid no attention. He gave a speech in which he said, "In the councils of government we must warn against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex."

He also should have warned us that the military-industrial complex had control of the CIA which President Harry Truman created after World War II to stave off the fatal hug of the Russian Bear. Had Truman been a closer reader of bureaucratic history, he would have known that "intelligence" organizations have a way of inevitably expanding themselves into covert actions. Then by infiltration and blackmail they become a forceful shadow over the very government that gave them life. Witness the recent revelations concerning the transvestitism of the FBI's J. Edgar Hoover.

Shadow governments become more totalitarian year by year. Ike also might have warned us about this, and the fact that their sometime handmaidens, the academic, legal and medical professions, are also complexes that bolster and protect these entities. The story of that period and the political ramifications from our expanding cold war with the Russians is best summed up by the authors of an excellent contemporary book on NASA, *Journey to Tranquility*, printed in 1969 shortly after the Apollo 11 flight.

"The concepts of politics and war may seem to defile the beautiful picture of brilliant thinkers acting out private dreams. But it is these that gave the journey to Tranquility a troubled, uncertain and sometimes sordid passage." ¹

"Some politicians built careers on it; others lined their pockets from it. Whole corporations survived on the strength of it, as tiny groups of men decided where its billions of dollars would be distributed." ²

"The builders of Apollo were not technicians at work in a laboratory insulated from the world. They were soldiers in an age when technology has become warfare by other means." ³

And its authors Young, Silcock, and Dunn wrote these words.

"Long before the satellite got off the ground, it became the object of political and military wrangles of the most virulent kind. When it finally reached its destination, it was no longer a triumph of science. It had been transformed from a box of technical tricks into the obsessive tool of cold-war politicians. There could have been no apter beginning to the real history of America's great space adventure." ⁴

Immediately after Sputnik we were playing a losing game. We could orbit a tiny, tinned toy and they would answer with a big, heavy, mean machine. They had Cummins diesels and we had Volkswagens. Our Mercury Program popped Alan Shepard up in ballistic flight for all of 15 minutes. We hailed this, even though we could not achieve a true orbit. Their cosmonauts were breathing air at normal atmospheric pressure (14.7 psi), but ours were forced to use 100 percent oxygen at 5 psi. A shell strong enough to hold normal pressure in space was much heavier than our rockets could then lift.

The hysteria caused by Sputnik destroyed the logical developmental course we should have followed in attempting to reach the Moon. In his book, *Angle of Attack*, Mike Gray, writes how we should have flown "the X-15 to the edge of space; then build an 'X-16' that would fly into orbit; then an 'X-17' - a space shuttle - that would carry cargo; use the shuttle to build an orbiting space station; and then, say about 1985, depart from there on an expedition to the moon." ⁵

In due time our second astronaut, Virgil Grissom, spent 16 minutes in ballistic flight. But two weeks after that the Russians upped the ante by putting a cosmonaut in orbit for over 25 hours. Six months later John Glenn finally boosted into orbit, into fame, and eventually into politics, by staying up for almost five hours. Three months after that Scott Carpenter duplicated, almost to the minute, Glenn's ride.

Two months later, on August 11 and August 12, 1962, the Russians really played hardball by sending up two cosmonauts in two separate birds. They also had the nerve to add a lot of insult to our injury by staying up for 94 hours and 71 hours respectively. Plus another first - they made a rendezvous with each other!

Things were quiet for a while, and then on May 15, 1963 we orbited for over 34 hours. A month later the Russians played "one-upmanship" and within two days sent up another two birds. The first one stayed up 119 hours, and the second carried the first woman into space, Valentina V. Tereshkova, who orbited for 71 hours.

Then rub-a-dub-dub the Soviets sent up three men in a big, big tub. Six months later we got two men up in our own washtub with the first shot of the Gemini Program. But we finally had the bit in our teeth. We were going to win that space race no matter who it killed or how much the cost.

The decision to go to the Moon was not made by President Kennedy but by NASA itself. A man named George M. Low pressured an internal NASA committee into accepting that goal.⁶ It was the tail wagging the dog that day when NASA set its own agenda to start the Apollo Program. Nothing has changed since!

Had rocket expert Wernher von Braun been allowed to fire off his rocket in the fall of 1956 we would have orbited the first satellite. However, it was politically incorrect to use former Nazi expertise. Politically, our great leaders desperately wanted the Navy to be first with an all American-made Vanguard rocket.

In the early '60s the only technicians who actually knew how to build rockets were those harvested up by the army from the German V2 Program. They were all working in Huntsville, Alabama on our missile program and miraculously, the military, an organization rarely known to give up the spoils of war, released them to NASA.

Just as its predecessor, the Nazi V2 missile project in Norway, had been taken over by the Nazi SS, ours was also held in thrall by the CIA. How this machination was accomplished and maintained is not known, but as the tiger is known by its stripes, you can bet that whenever big bucks are involved the CIA will be there. And NASA bucks are still big!

The estimate given to Kennedy to put a man on the Moon was less than 20 billion dollars. The final cost, if tallied by the total expenditures of NASA from 1962 to 1973 was over 39 billion.⁷ This is about 200 billion 1990 dollars.

Norman Mailer said of the Apollo Project that he couldn't decide whether it was "the noblest expression of the twentieth century or the quintessential statement of our fundamental insanity."⁸

Some contemporary critics called NASA's Moon project a "Roman Circus". However, I feel that term is a little too strong. "Space Opera" has a better ring to it. First there was the terrifying quasi-cremation of three astronauts on Pad 34. Then in each of the manned missions that followed serious problems developed, but each time, in the nick of time, American astronauts and/or unsung NASA geniuses saved the day!

After the Apollo 11 landing, the American public began to ignore the subsequent landings. Congress was getting a little shaky because of the CIA's secret Laos war and the Vietnam police action, racial rioting, hippie rebellions, and student demonstrations. Our leaders were working overtime trying to throw a great war in Vietnam, but many of the kids from farm and slum, the backbone of all our previous armies, didn't want to come to the party. Tens of thousands of draft dodgers were leaving the USA for Canada and other parts unknown. The legacy of Vietnam still troubles this country.

Potential draftees seemed to know instinctively what took me another twenty years to find out — that basically Vietnam was a CIA war over who would control the worldwide distribution of heroin from the Golden Triangle.

NASA had planned the first manned landing sometime in October 1967. There were three very political reasons for this schedule. The first was that the Russians were expected to execute a Moon landing to commemorate the fiftieth anniversary of the Bolshevik Revolution. The next because 1968 represented the beginning of a period of intense solar flare activity. The last because it could affect the coming Presidential elections.⁹

The American public never quite caught space fever. Yes, they cheered on the launchings, but by Apollo 12, the second landing, even America's patriotic silent majority began to

question the necessity of more Moon shots. There is a saying by the journalists who work in Washington DC that the letters "N.A.S.A." stand for "Never A Straight Answer". Despite this, NASA continues to run amuck.¹⁰ In May 1995 Congress reduced their budget to its 1961 level. I believe it was because I had spent over two years sending copies of this book to any member of Congress who seemed the least bit rebellious. That tremendous decrease in budget didn't even slow them down. I can only conclude that they are being funded directly by the Federal Reserve a group of private banks.

However, NASA's public relations department was equal to the task. They kept grinding out action scripts. The liquid oxygen storage containers on Apollo 13 exploded between here and the Moon. Apollo 14 had trouble with the LEM while landing on the Moon. On Apollo 15 they were drowning in the capsule, and Apollo 16 suffered strange vibrations. Apollo 17 saw the end of the space opera despite NASA's previous plans for many more landings.

In the meantime, we were being devastated by racial rebellions, campus riots, and a simmering anger as the poor began to realize that they paid most of the freight for all these grandiose adventures.

There was a slight surge of interest when the "Rovers" were introduced. They too soon grew boring despite the fact they were now broadcasting live color TV. Had we known at the time that each throwaway Rover costs over 12 million dollars we probably would have had more riots.

Also the end of the Apollo Program saw a shift in direction from the professed scientific toward military and commercial ventures. Harry Hurt III says it succinctly:

"Henceforth, the space agency paid only lip service to the noble theme etched on the plaque the Apollo 11 astronauts left on the moon; 'We came in peace for all mankind.' The first series of shuttle flights pioneered the commercialization and militarization of space, forsaking manned exploration of the solar system to concentrate on the pursuit of profits and the development of a Strategic Defense Initiative (SDI), also known as 'Star Wars.'"¹¹

Perhaps Hurt's position is closer to mine, but his conclusion may change after he reads this book.

1. p. 3, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
2. p. 4, Ibid.
3. p. 4, Ibid.
4. p. 41, Ibid.
5. p. 41, ANGLE OF ATTACK, "Gray", 1992, Norton
6. p. 65, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
7. p. 54, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
8. p. 15, Ibid.
9. p. 80, MISSION TO THE MOON, "Kennan & Harvey", 1969, William Morrow & Co.
10. p. 43, Ibid.
11. p. xii, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press

STAR LIGHT - STAR BRIGHT

On evenings when the sky is clear, as the day's light fades from our fluorescent sky some of us look up seeking the first star of the night. At such times, those of us still young at heart remember the old litany in which we ask the gods for one small, measly little favor. We remember squinching our eyes shut real hard and telepathically broadcasting our wish to the all-knowing gods. The ancient magical chant goes like this:

Star light — star bright
First star I see tonight I wish I may, I
wish I might Have the wish I wish tonight

Most of us quit the practice as we got older. We quit because we noticed that very few of our wishes came true. For the few wishes that did come true, we usually soon came to regret making that particular wish in the first place; especially when it involved sex, jobs or money, all the really neat things in life. Indeed, sometimes a granted wish is so hard to get rid of that we desperately attempt to make it go away by again eliciting the same gods who granted it. To do this you have to try again, and again, and again.

By human standards, the fickle gods have a very distorted sense of humor, giving us what we ask for only when it is not what we truly deserve. Despite that fact, I have an idea why they do what they do. They sock it to us because most people wish on a star that is not a star at all. The two brightest objects in our sky are the planets Venus and Jupiter. Most people seeking to make a wish are too anxious. They usually mistake one or the other of these planets for the first "star" of the night. True, these planets are usually the first visible celestial objects, but from the viewpoint of the gods we are ignorant and greedy: ignorant for not knowing the difference and greedy for not waiting a few more minutes. Had we but waited we would have had our pick of the brightest stars: the important stars used by navigators.

Another ten minutes in the darkening night, provided we weren't legally blind, would have allowed us to see a hundred stars. Then, mere minutes later, a thousand stars would peep through in all their various shades of color and varying degrees of brightness. This, despite the fact that we live at the bottom of the atmospheric well which is laden with dust, humidity, smoke particles, and pollen. This, despite ground light pollution from house and streetlights, headlights, lighted signs, and smog, which destroy our night vision. Professional and amateur astronomers, along with a few hundred million other folks all over the world, know that the higher the elevation, the less the ground lighting; the less the moonlight and the colder and drier the air, the more stars can be seen. In fact, tens of thousands of stars are visible to the naked eye, particularly at higher elevations on cold, dry nights.

Star watchers are entranced people who have been known to drag their kicking and screaming friends out into the dark night just to get them to stare up at the sky. I'm a dragger. I've urged many a friend out of warm sleeping bags when camped out on hunting and fishing trips. I have hauled them from warm cabins and cars on sub zero nights, after skiing all day and have even run them out of the warm cabin on my boat. Without exception, no matter how cold the night was, the raucous complaints stopped once they looked up.

The point is that in my entire life I have never met anyone who was star-blind. In fact, I had no idea that the condition even existed. Everybody I personally know (that's hundreds of people with the exception of those who are truly blind) can see the stars. Yet, after NASA

pored through thousands of service records in 1961, and after multiple screenings and batteries of tests, NASA selected seven truly exceptional men for astronaut's training. Eventually one of them, Alan Shepard, was put in a tin can and blasted into a ballistic arc, barely touching what NASA called "space". "Close space" is a more accurate term.

Anyway, up he went. Despite the G's thrust on him from the cannon shell they called a Redstone rocket, Shepard reported seeing no stars. (If somebody strapped me in a tin can atop a Redstone rocket that pulled 4 G's acceleration, I think I would have seen stars!) Unbeknownst to us at the time, this was the first recorded case of star-blindness in the whole world. Alan, the poor guy, had all the "Right Stuff", but he was star-blind.

Next, NASA spent three and a half months setting up another lightweight tin can. This time Virgil Grissom duplicated the ballistic arc for the same fifteen minutes or so. When he was recovered and questioned, believe it or not, he hadn't seen any stars either. He too was star-blind. That's two out of two, and I figure the odds against that to be pushing about 10,000 to 1. To cover this obvious blemish in the superior abilities of the astronauts, NASA told us a little fabrication. Their apologists claimed that the eyes need a long time to adjust enough to see the stars in the blackness of space. That's one of the dumbest lies they ever told. We can stare at a street light and look quickly at a star and see it.

But at this stage of the game, someone in NASA must have been in a total panic. NASA's real goal, to beat the Russians to the dark side of the Moon, required men who could certainly see the stars. The only thing that NASA felt at this early stage in the space game was that this goal had been jeopardized. Astronauts with star-blindness who cannot see the stars would be unable to navigate to the dark side of the Moon. Being the first to get to the dark side was vital to American interest for both military and scientific reasons. Such reasons have somehow been almost synonymous since World War II. The military reason was that the first country to get there could build a base hidden from Earth. The scientific reason was that someday we could set up a telescope to study the stars.

Of course, a Lunar telescope could be almost as effective if it were located on the near side of the Moon. What we term a month is actually a Lunar day. Either side receives equal hours of day and night. The only advantage to be had was that the bright Earth would never block out a small section of the sky. The down side is that an alternate transmission method would be needed to communicate with Earth.

As soon as possible, NASA tinkered up another tin pot, this time bolting it on a bigger rocket. John Glenn soared into space and not only attained orbit, but also, a bit later, won a seat in the Senate. He was up for almost five hours and when snatched from the cold waters of the Atlantic Ocean he reported that he could actually see a few stars and even some constellations, indicating he was only a little bit star-blind. The odds against all three randomly chosen astronauts being star-blind to some degree had to be a million to one. This raised a scientific question: was star-blindness induced by space itself or by zero gravity?

NASA surely must have been dithered! However, being guys with the "Right Stuff", they next sent up a few more astronauts for even longer periods of time. But there was no improvement in the rate of star-blindness. Apparently, almost everybody had it. They also discovered that these poor souls were also planet-blind. On subsequent missions the various astronauts would report seeing God, flying angels, and UFOs, but the stars remained dim and fuzzy, and no one ever reported seeing a planet.

Once again, American prestige and world leadership was at stake. If the Soviets, who reported no such problem, found out that the creme de la creme of American men (those who had the most "Right Stuff") were star-blind, then by the power vested in the Domino Theory, our way of life would soon be over. We would be knocked onto the ground and stomped flat under the heel of a totalitarian military boot as demonstrated by Soviet Premier Khrushchev at the United Nations when he beat his shoe on a podium. Our democratic lifestyle would disappear from the face of the Earth: blasted away, city by city, in atomic holocausts. At least, that's what was strongly implied at the time about the Vietnam situation. And it also seemed to apply itself to this cold-war situation.

NASA tested another batch of pilots, but this time they tested them for star-blindness before they inducted them into the space program. Their research medical staff, together with an army of shrinks, devised a surefire test to check them out. The method was straightforward. It consisted in paying local scout leaders to escort the candidates into the mountains for a night of camping out and star gazing, man to man! When they came back from the trip the scout leaders pronounced them to really have "The Right Stuff."

The new group of astronauts were integrated with the old veterans, and NASA began to send them up two at a time in the Gemini Program. Hopes ran high. Still, after ten more space shots, the best that could be found were a few who could pick out a couple of fuzzy, indistinct stars. It was probably bruited about by the higher echelons of super spooks in the ASP cavern that star-blindness was extremely contagious — like chicken pox or measles. The up side was that those few who could barely see the stars would become navigators and with luck we could still get to the dark side of the Moon before the Russians. It was dangerous, but hey, that's what men with "The Right Stuff" do best; they confound us by confronting danger.

Further testing disclosed that for some undiscoverable reason every astronaut could see the stars and the planets while he was here on Earth, but the instant he hit space this was no longer true. The disease apparently occurred only under conditions of zero gravity. It seems a cosmic joke that just as man reaches for the stars he becomes star-blind. Obviously, no cure was ever found because even today few shuttle astronauts have ever mentioned seeing the stars or planets. Did I tell you that the gods were capriciously cruel and crazy?

The New World Order was hanging on by a thread. How could the rest of the world be led to one-world citizenship by the U.S. if our men didn't have the "The Right stuff"? The Trilateral Commission probably held its collective breath and ordered an expansion of NASA's program. NASA, being the eternal optimist, readily went along for two reasons. The first was that hope springs eternal in the human breast. Secondly, it was a gravy train, a pork barrel, a veritable cornucopia of untraceable and unaccountable funds.

NASA inducted even more astronauts into its ranks. They hired thousands of people and let out billion-dollar contracts to multi-zillion dollar blue chip, multi-national corporations. After all, what is money when God, Apple Pie, the Flag and the American Way of Life were at stake? Sooner or later, NASA knew that we would get to the dark side of the Moon. This was nobility in its highest form!

During the Apollo Program, they began to regularly send astronauts out in threes. The ground computers handled the outward bound navigation to the Moon. Everyone, including the designated navigators, hoped for the best. This turned out to be okay because once they orbited the dark side, while not cured, they really could see the stars clearly enough to be able to report their position.

Before my research into this matter I initially suspected that star-blindness was CIA disinformation for the Russians. Now I don't know what to think. But I shall reprint comments the astronauts themselves made during various Apollo missions so that you can come to your own conclusions. Only two of the many books I read for this book dealt in any depth with the subject of star-blindness beyond reporting that the stars were dim and fuzzy. The first is *Carrying the Fire* by astronaut Michael Collins. The other is *For All Mankind* by Harry Hurt III who seems to be a very competent researcher. I thought about going to visit the NASA archives in Houston, but I chickened out. I believe that once NASA lets a too-curious visitor into its vaults he (I), might not find the way out again.

The government, in addition to having a very bad safety record concerning people who seem to be a tad critical, are always classifying this or that file so that they cannot be viewed for fifty some odd years. Many government critics have complained that the (so-called) Freedom of Information Act has many capricious frustrations. Besides, I didn't want to be "accidentally" locked in one of those basement record rooms.

My first quote for this section regarding the back side of the Moon was taken from Harry Hurt's book. He states: "The moon is a natural laboratory for practical research. Its dark side is the ideal place for a giant telescope (possibly constructed out of glass blown from lunar sands) that could afford vast new glimpses into deep space astronomy."¹

That is exactly what I have been telling you. The dark side is apparently — according to NASA — the only place that star-blind people will ever be able to clearly see the stars. Never mind NASA's unconscionable goof with the original optics of the Hubbel Telescope — or their subsequent multi-million dollar repair job. Deep space telescopes may be astigmatic, but — by definition — they're hardly star blind, like the early astronauts. The serious side is that Hurt touts NASA's grandiose plans for Mars because he still believes in NASA.

It's all kind of dumb anyway. These fools talking about the dark side of the moon seem to have forgotten that the Moon has no Earth-type fluorescent atmosphere, which sends generated light flying in all directions. Light travels, or reflects, only in straight lines, and it makes absolutely no difference in space whether the Sun is shining or the Earth is shining. A highly directional instrument like a telescope would only have to have a black tube affixed to its end to protect its optics from secondary light pollution.

Buzz Aldrin was also quoted by Hurt. While riding Apollo 11 on its way to the Moon, he spoke about the spacecraft's induced rotation around its longitudinal axis. "the only consolation was the magnificence of the visual spectacle that paraded past their portals during every roll, what Aldrin calls "an incredible panorama every two minutes as the sun, moon, and Earth appeared in our windows one at a time."²

There was no mention of stars or planets. His partner, Neil Armstrong, is also quoted, ""The sky is black, you know,"..."It's a very dark sky."³

I find all this extremely difficult to understand, because I have been in the woods at night when it was closet black. On clear nights, even those with the new moon, I could travel with ease through the woods using only the light provided by the stars. I was younger then and maybe my eyes were better, but I could even read a book or newspaper by the light of the moon.

What makes this star-blindness even stranger is that it comes and goes. On the Gemini 10 mission while space walking, Collins reported, "My God, the stars are everywhere: above me on all sides, even below me somewhat, down there next to that obscure horizon. The

stars are bright and they are steady." ⁴

Then, by the time he gets to the Agena, the stars are gone. Three years later, on his way to the moon in Apollo 11, he writes, "I can't see the earth, only the black starless sky behind the Agena, ..." ⁵ And on the next page, "As I slowly cartwheel away from the Agena, I see nothing but the black sky for several seconds,..." ⁶

One hundred and fifty pages later he also writes, "What I see is disappointing for only the brightest stars are visible through the telescope, and it is difficult to recognize them when they are not accompanied by the dimmer stars,..." ⁷

That's an incredible statement. Our normal stars seen clearly through a thick atmosphere here on Earth by the naked eye were so dim in space that even a telescope fails to reveal them. All I can conclude is that star-blindness must be like malaria: you are subject to unpredictable random attacks of star blindness when you are in zero gravity. It is a good thing that this doesn't happen here on Earth. Imagine the consternation if half the people say, "See that bright star up there!" and the other half asks, "Up where?"

Nevertheless, as the Apollo 11 capsule rounded the Moon the situation changed. As reported by Harry Hurt: "Apollo 11 commander Neil Armstrong, by far the most laconic member of the crew, was also moved to comment: "Houston, it's been a real change for us. Now we are able to see the stars again and recognize constellations for the first time on the trip. The sky is filled with stars, just like nights out on Earth." ⁸

But as they rounded the Moon once again, the situation brings forth this comment from Mike Collins. "Outside my window I can see stars — and that is all. Where I know the moon to be, there is simply a black void; the moon's presence is defined solely by the absence of stars." ⁹ Naturally Collins couldn't see the stars if he were looking toward the dark side of the Moon, but if the Apollo 11 rotated, or came around the limb of the Moon, stars should be visible.

More confusion emerges as we read the following "explanatory" quote by Collins: ¹⁰ "Toward the sun nothing, nothing can be seen but its blinding disk, whereas down-sun there is simply a black void. The stars are there, but they cannot be seen because with sunlight flooding the space craft, the pupil of the eye involuntarily contracts, and the light from the stars is too dim to compete with the reflected sunlight, as both enter the eye through the tiny aperture formed by the contracted pupil. No, to see the stars the pupil must be allowed to relax, to open wide enough to let the starlight form a visible image on the retina, and that can be done only by blocking out the sunlight." Then they rig plates over the windows and he reports, "Under these conditions the eye slowly "dark adapts" itself, and the brighter stars gradually emerge from the void."

Fourteen years later Collins wrote another book. The writing is so different from his first that one would almost think it was written by someone else (or at least another ghost writer). In it he proclaims, "My God, the stars are everywhere, even below me. They are somewhat brighter than on earth ..." ¹¹ Toward the end of that book he declares, "Never a day without sunshine, or a night without stars —fat, unblinking stars." ¹² Golly, Collins saw the light at last!

Every star is just a point of light. Even the closest stars cannot be magnified, or resolved, into a perceptible sphere by the largest of our astronomical telescopes. However, point for

point, a visible star is an intensely bright shaft of light, much brighter even than the reflected sunlight from the Moon. As you may know, you can see the Moon in the daytime, when it's invisible to all who don't know the secret. All you have to know is exactly where to look, and simply sight it through a tube made out of your hands. I have been told that stars can be seen in the daytime by making a long black paper tube and then sighting through it. I have also read that stars are also visible from mine shafts and deep wells during the day.

Unfortunately, Apollo 11 was not the only mission during which star-blindness was a problem. Hurt reports this about the Apollo 14 mission, "The astronauts had a hard time seeing the stars even with the help of a special 'monocular' (half a binocular) used to supplement the scanning telescope and the sextant. Due to the absence of an atmosphere to refract and filter light, the stars do not twinkle in cislunar space. Rather, as Stu Roosa puts it, "The stars look like little points of light or fuzzy little dots." ¹³

On that same mission Roosa's crew-mate Ed Mitchell got into the act. "It's a very eerie feeling. You suddenly start to recognize that, yeah, you're in deep space, that the planets are just that, planets, and that you're not really connected to anything any more, that you are floating through this deep black void." ¹⁴

One of pilot Stu Roosa's jobs, as his partners descended and traipsed about on the Moon, was to take photos of the dark side of the Moon for mapping purposes while he orbited it. He reports, "That dim light photography was very complicated because you had to do it in total blackness, the blackest you can ever put a human being in without closing him in an absolute black room. You have no earth light, you have no sunlight, you have no reflected light bending the corners anywhere. It is black-black." ¹⁵

What has me perplexed is that he is now talking about mapping photos he took of the dark side of the Moon. If it was that dark how did he get the pictures? His film is apparently fast enough to take pictures of a black body but not fast enough to see a star?

And Gene Cernan on the Apollo 17 also talked about his star-blindness. Hurt wrote, "When the sunlight comes through the blackness of space, it's black. I didn't say it's dark, I said black. So black you can't even conceive how black it is in your mind. The sunlight doesn't strike on anything, so all you see is black." ¹⁶

No mention of stars, not even dim and fuzzy ones; no mention of planets either. I began to wonder why NASA subsequently put up the faulty Hubbel telescope if all these Apollo astronauts were really telling the truth. Could a telescope catch star-blindness? Then I thought of a superb super spook reason. Suppose the Hubbel was built so the CIA could look not up at the stars but down on Earth? They could then spy on the enemies of our state day and night. Enemies like you and me. Seems to me that the wide-angle lens included with the package is only useful when looking at the Earth. Recently I found out that Aldrin claims that as early as 1966 the CIA had a fleet of, at least, eight recon satellites equipped with telescopes called "Keyholes". ¹⁷

Someday I wish that some Earthbound astronomer would take a quick peek at the repaired Hubbel during the day, when it's passing over his head. Like the monkey who was locked in a room by a psychologist watching through the keyhole to see what he'd do, I suspect that the Hubbel monkey might be found to be looking back at him.

To put the original disclaimer to the dim and fuzzy stars is Yuri Gagarin, the first Russian cosmonaut, who says of his flight, "Astonishingly bright cold stars could be seen through

the windows." ¹⁸

And then the last words are from Ghermin Titov, the Russian cosmonaut who had the first long stay in space (17 orbits). "Vostok II plunged with a rush into the inky blackness of the planet's shadow, and as my eyes quickly adapted to the change I stared in wonder at huge stars that glittered like diamonds." ¹⁹

This leads inexorably to a final question: why lie? NASA always claimed that mankind had a universal urge to explore. Indeed the biggest reason for its existence was to advance science. The astronauts eventually came to consider themselves "scientists". Since science is the advancement of knowledge so that myth and false beliefs may be dispelled, why lie?

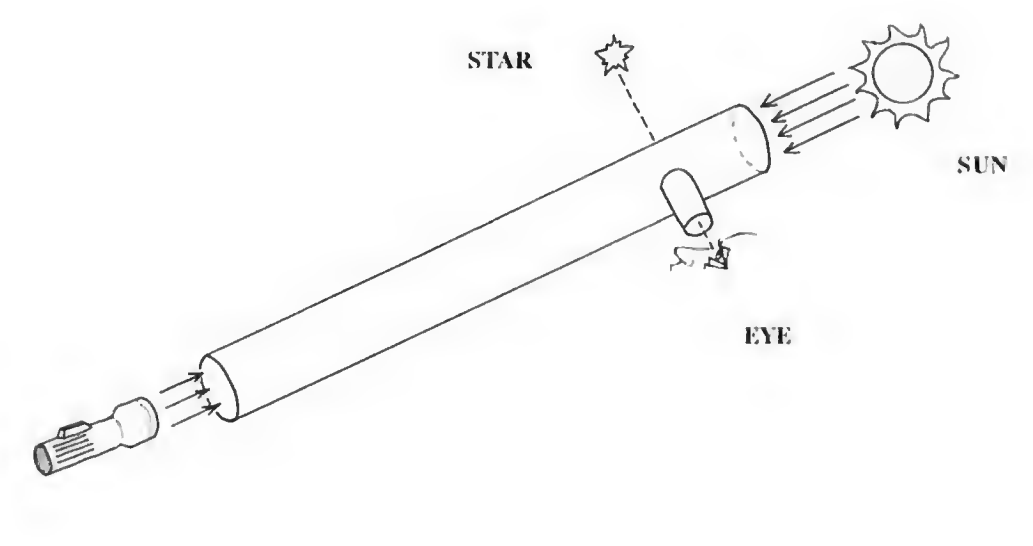
Professional astronomers have assured us that once we got above the Earth's atmosphere the view would be incredible. We would leave behind the moving thermal layers of air which causes those pin-points of light called stars to twinkle. We would also leave behind the reduction of intensity due to pollen, dust, humidity, and the thick layer of air itself. On a clear day we could see forever.

In retrospect, it seems that from the first Mercury shot, each and every astronaut has been compromised by the stars. These very same stars were reported as clearly visible by test pilots who flew the high-altitude rocket planes in the 1950's.

The final simple question. Why didn't the astronauts record on film a new scientific truth that the stars are not brilliant out in space? They had Hasselblad cameras, the finest in the world at the time. They had high-speed film, and, simply by opening the lens stop and slowing down the exposure they could have proved the truth of their words. Wouldn't that have been more scientific than randomly collecting a bunch of dusty rocks? But that would have given away the hoax. I repeat, it would have been impossible to fool the amateur astronomers.

1. p. 319, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
2. p. 108, Ibid.
3. p. 173, Ibid.
4. p. 222, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
5. p. 231, Ibid.
6. p. 233, Ibid.
7. p. 373, Ibid.
8. p. 128, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
9. p. 409, "CARRYING THE FIRE, "Collins", 1974, Ballantine Books
10. p. 383, Ibid.
11. p. 100, LIFTOFF, "Collins", 1988, Grove Press
12. p. 266, Ibid.
13. p. 116, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
14. p. 78, Ibid.
15. p. 227, Ibid.
16. p. 77, Ibid.
17. p. 150, MEN FROM EARTH, "Aldrin & McConnell", 1989, Bantam
18. p. 4, SURVIVAL IN SPACE, "Gagarin & Lebedev", 1969, Frederick A. Praeger
19. p. 14, THE MOON: New World for Men, "Caidin", 1963, Bobbs-Merill Co. Inc.

STARLIGHT SCOPE ADDENDUM



I made this instrument to prove the astro-nots lied about the stars. The body is a two-foot long, three-inch diameter cardboard tube, through which I drilled a 1/4-inch hole exactly across the middle. The eyepiece is a two inch length cut from a toilet paper tube, and I glued it concentric to the drill hole. The tubes are painted flat black inside and out. During the day, with the Sun streaming down the tube, I can see a black object miles away. At night, with a bright flashlight shining up the tube, I can see any star I look at. Photons at right angles to our line of sight simply do not interfere with our vision.

Even morons know that if they shield their faces from the Sun they can see objects very close to it. Don't you find it strange that not one of these men (with The Right Stuff) knew how to do this? Stranger still is the fact that when they complained about this to NASA not one of the NASA people knew how to do this!

MASS MURDER OR UTTER STUPIDITY

The Right stuff

"The Seven Samurai" is a 1954 Japanese cult movie about a poverty-stricken village that hired seven magnificent warriors to help them fight bandits. In 1960 Hollywood filmed "The Magnificent Seven", which was the same story set in Mexico as a western. Someone in the hierarchy of NASA had undoubtedly seen one or both movies and decided that seven space samurai was a psychologically appropriate number to start with. We were told that these men represented the nation's finest and that they possessed what was later called that elusive quality, "The Right Stuff."

Virgil Grissom certainly had "The Right Stuff". He was one of the original seven, culled from the first batch of military test pilots almost a decade before. Grissom was not the type of man who "went along to get along." Men who spend their lives seeking the wild hairs on a new airplane's ass seldom are. He was a professional test pilot and a mechanical engineer and had flown about 100 combat missions in Korea. But he was dead before his flight to the Moon could fulfill his dream.

Accidents

Compared to civilian test pilots, the astronauts were underpaid. However, their perks were impressive. Their celebrity status instantly conferred upon them all the bonuses usually associated with show business stardom. Each night on the town provided them with all the young women they could handle, plus free drinks in every bar in the country. They were also given a government jet trainer as a personal toy.

Test pilots have a hazardous occupation which probably sees as many fatalities per unit of time as do men in combat. However, before the first Apollo manned flight ever cleared the launching pad, eleven astronauts died in accidents. Grissom, Chaffee, and White were cremated in an Apollo capsule test on the launching pad during a completely and suspiciously unnecessary test. Seven died in six air crashes: Freeman, Basset, See, Rogers, Williams, Adams, and Lawrence. Givens was killed in a car crash.

When one reflects on their deaths in the light of the three-man instant crematorium one wonders. Add the fact that there were eight deaths in 1967 alone. One wonders if these "accidents" weren't NASA's way of correcting mistakes and saying that some of these men really didn't have "The Right Stuff."

After 1967, only Taylor died in another plane crash in 1970. An actuarial statistician would probably go berserk over these numbers considering how small the group was. Another weighty factor: even though they were "hot" pilots, the astronauts flew their trainer jets only part-time. And add to that the fact that trainers are inherently safer than other planes in the same class. It would raise his eyebrows to find how few of these men would ever enter space.

I can't help but wonder what technicians serviced their ships — because what we have here is an appalling "accident" rate. They were the finest professional pilots in the world,

operating government planes where costs have little meaning. Yet they died. Even if we call the cremation an accident, we still have five more "accidental" deaths in one year. Very interesting! I also wonder what the death rate was among the other NASA employees who were in a position to know too much?

SPACE MISSIONS PERFORMED BY ORIGINAL SEVEN

Name	Mission	Date	Mission	Date	Mission	Date
A. Shepard	Mercury 3	05/05/61			Apollo 14	01/31/71
V. Grissom	Mercury 4	07/21/61	Gemini 3	03/23/65		
J. Glenn	Mercury 6	02/20/62				
S. Carpenter	Mercury 7	05/24/62				
W. Schirra	Mercury 8	10/03/62	Gemini 6A	12/15/65	Apollo 7	10/11/68
G. Cooper	Mercury 9	05/15/63	Gemini 5	08/21/65		

The Preliminaries

The first American in space was Alan Shepard, followed by Grissom and then Glenn. I'm convinced that every Mercury flight was real and that the phony missions only started after Grissom's Gemini 3. Even some of the later Gemini flights were real (which leaves most of the original astronauts smelling like a rose). Unfortunately, Wally Schirra and NASA General Tom Stafford's Gemini 6A flight, with its miracle of an undamaged antenna, turned the rosy aroma into real toilet water. So did Alan Shepard's little golf game on the Moon during the Apollo 14 mission.

All of these men barely entered near space (near-Earth orbit) which I define as any altitude less than 500 miles. Far space is for those interstellar journeys that may come during the next millennium. That is, if we can solve our planetary problems before we dissolve in the stew created by the Four Horsemen of the Apocalypse: War, Famine, Plague, Pestilence. Add a fifth "horseman", Religious Fanaticism, which frequently causes the other four.

Every other "race" involving aircraft, from hot air balloons through rocket planes, entailed serious efforts to go higher and faster than the other guy. For good technical reasons neither we or the Russians played that game. To this day our shuttle flights are limited to very near space, usually well under 200 miles in altitude.

Most writers on the Apollo Program either totally ignored, or played down, the fact that by early January '67, Grissom was no longer a happy camper. He was very disenchanted with both NASA and the prime capsule contractor, North American Aviation. This company had a phoenix-like ability to weather every storm, including the fire on Pad 34. They ultimately combined with Rockwell Engineering to become North American Rockwell.

Grissom's Lemon

North American Rockwell's first Apollo capsule was delivered and accepted by NASA in August '66, with a flight date set for November. But time after time the date had to be reset because of problems with the craft. "Grissom, a veteran of two test flights in Mercury and Gemini, normally quiet and easy-going, a flight pro, could not hide his irrita-

tion. 'Pretty slim' was the way he put his Apollo's chances of meeting its mission requirements."¹

According to Mike Gray, "Grissom had a sense of unease about this flight. He told his wife, Betty, 'If there ever is a serious accident in the space program, it's likely to be me.'"² We will never know if this statement was the result of a psychic premonition or a burgeoning fear of our government.

Early in January '67, Grissom, probably unaware that NASA had other internal critics, hung a lemon on the Apollo capsule. Then he threatened to go public with his complaints about the LEM.³ Grissom was already a popular celebrity, especially with the press. He would have had no problem getting his story out. In a case like this, even NASA's censors would have had little control over the news. Headlines like "Popular Astronaut Rips Into NASA!" couldn't easily be squelched.

Space Radiation

NASA also had another serious problem besides being in a space race with the Russian Bear. This problem derived from our first answer to the Sputniks. On January 31, 1958, Explorer 1 lifted into orbit. It weighed a mere 18.3 pounds and carried a geiger counter which dutifully reported that a belt of intense radiation surrounded the Earth.

The belt subsequently was named after the Explorer project head, James A. Van Allen. The radiation was first predicted by Nikola Tesla around the beginning of the 20th century as the result of experimental and theoretical work he had done on electricity in space in general and the electrical charge of the Sun in particular. He then tried to tell our academic natural philosophers (scientists) that the Sun had a fantastic electrical charge and that it must generate a solar wind. His efforts came to naught! Those experts "knew" he was crazy. It would take almost sixty years for future experts to prove him right.

However, predicting something is not the same as discovery. The discovery of our magnetic girdle of radiation rightfully belongs to the man who was suspicious enough to put a geiger counter on board the satellite (whichever technician actually thought of it).

Subsequent study showed that these belts, begins in near space about 500 miles out and extend out to over 15,000 miles. Since the radiation is more or less steady, it obviously must receive as much radiation from space as it loses. If not it would either increase until it fried the Earth or decay away to nothing. Van Allen belt radiation is dependent upon the solar wind and is said to focus or concentrate that radiation. However, since it can only trap what has traveled to it in a straight line from the Sun, there remains a very dangerous question: how much more radiation can there be in the rest of solar space?

The Moon does not have a Van Allen belt. Neither does it have a protective atmosphere. It lies nakedly exposed to the full blast of the solar wind. Were there a large solar flare during any one of the Moon missions, massive amounts of radiation would scour both the capsules and the Moon's surface where our astronauts gamboled away the day. The radiation is worse than dangerous — it's lethal!

In 1963 the Soviet space scientists told the famous British astronomer Bernard Lovell that they "could see no immediate way of protecting cosmonauts from the lethal effects of solar radiation." ⁴ This had to mean that not even the much thicker metal walls used on the Russian capsules could stop this radiation. How could the very thin foil-like metal we used on our capsules stop the radiation? NASA knew better. Space monkeys died in less than 10 days, but NASA never revealed their cause of death.

Most people, even those interested in space, are still unaware that killer radiation pulses through space. I believe our ignorance was caused by the people who sell us space sagas. I have a 9 by 12 inch coffee table book titled *The Illustrated Encyclopedia of SPACE TECHNOLOGY* printed in 1981. The words "space radiation" just do not exist on any of its almost 300 pages. In fact, with the exceptions of Mauldin's *PROSPECTS FOR INTERSTELLAR TRAVEL* published in 1992 and *ASTRONAUTICAL ENGINEERING AND SCIENCE* written by early NASA experts, no other book I have read even begins to discuss this extremely serious impediment to space flights. Do I detect the fine hand of my so-called government at work?

The Russians were in a position to know about killer radiation because as early as the spring of '61, their probes had been sent to the backside of the Moon. Upon his return to England, Lovell sent this information to NASA's Deputy Administrator, Hugh Dryden. Dryden, representing NASA, obviously ignored it!

Collins mentioned space radiation in only two places in his book. He said, "At least the moon was well past the earth's Van Allen belts, which promised a healthy dose of radiation to those who passed and a lethal dose to those who stayed." ⁵

In speaking of ways to dodge problems he wrote, "In similar fashion, the Van Allen Radiation belts around the earth and the possibility of solar flares require understanding and planning to avoid exposing the crew to an excessive dose of radioactivity." ⁶

So what does "understanding and planning" mean? Does it mean that after the Van Allen belts are passed, the rest of space is free of radiation? Or did NASA have a secret strategy for dodging solar flares once they were committed to the trip?

It seems to imply that in 1969 it was possible to predict solar flares. My astronomy text has this to say on that subject: "It is accordingly possible to predict only approximately the date of the future maximum and how plentiful the groups will then become." ⁷ This text was 10 years old by 1969. Later in this book I will show that nothing had changed during the years of Apollo Moon missions.

To continue with the Apollo Program after receiving this information implies that NASA knew something the Soviets didn't. Either we had developed an effective extremely lightweight radiation shield or NASA already knew that no one was going anywhere near the Moon.

Could the cloth in our space suits stop radiation? I doubt it because more than 15 years have passed since the partial core meltdown at Three Mile Island. Workers still can't enter the containment dome. We don't yet have the technology to create lightweight flexible radiation shielding. High velocity could get the capsule through the Van Allen belt quickly,

but what could they do about solar flares during the rest of the trip to the Moon? If we didn't go to the Moon, why didn't the Soviets, our arch enemies, rat us out?

Something rang a bell as I thought about this. About the time we were fighting communism in Vietnam, and other countries in southeast Asia, we began selling wheat by the megaton at an ultra-cheap price to the Soviet Union (later to be called the Evil Empire) wheat by the megaton at an ultra-cheap price. On July 8, 1972 our government shocked the entire world by announcing that we would sell about one quarter of our entire crop of wheat to the Soviets at a fixed price of \$ 1.63 per bushel. According to these sources we were about to produce another bumper crop while their crop would be 10 to 20 percent less. The market price at the time of the announcement was \$ 1.50 but immediately soared to a new high of \$2.44 a bushel.⁸

Guess who paid the 91 cents difference in price for the Soviets? Our bread prices and meat prices were immediately inflated, reflecting the suddenly diminished supply. It was the beginning of the high inflation of the '70s. Now, how much did the Moon cost us? Would our government be a party to blackmail? Nah!

However, if NASA knew that Kennedy's dream was impossible in the timeframe given, they should have reported this to the President. We are "civilized" now and no longer cut off the right arm of the messenger who brings bad news. Now we cut off budgets! That's safer for the messenger but fatal to the bureaucracy in question.

NASA must have decided that if they couldn't make it they would fake it. Big bucks were at stake here, to say nothing of American prestige. Those bucks, properly funneled, would buy a lot of Southeast Asia, at least for awhile. And with proper prestidigitation, some of same could wind up in numbered accounts handled either by the "gnomes of Zurich" or offshore Caribbean banks.

NASA's Other Problem

NASA's second problem was magnified as a result of the first. If they were really going to land on the Moon they would have to be able to take great quantities of real photos and pick up genuine Moon rocks. Such pictures should include the Earth rising or setting against a background of a bona fide starry sky.

However, if they weren't actually going to the Moon, the evidence would have to be synthesized. Credible proof was vital to the continued high rate of funding and to NASA's very survival. NASA's labs could create "Moon rocks" to the specifications of an educated, or rather an expected, guess that would pass any inspection, because there wasn't anything else to compare them to.

Or they could have used rock samples picked up in Antarctica during the intensive exploration of that continent during the International Geophysical Year in 1957, when that continent was extensively explored. Werner Von Braun had Antarctic rocks shipped to NASA. Any strange rock would do if there were no fossils in it. These rocks could be slowly doled out, but only to those geologists who could be counted on to agree with anything the government said. Much of academia can be relied on to do just that!

Strangely enough, rocks were later found in Antarctica that closely resemble "Moon rocks". In point of fact, some geologists are now positive that these rocks were blasted from the Moon to Earth during immense meteoric impacts.

However, true-to-the-Moon photos posed a bit more of a problem. Because the 20th century is the age of increasingly sophisticated photography, huge amounts of tape and film had to be expended. At the time NASA seemed to do precisely that. As Harry Hurt wrote, "... Project Apollo was one of the most extensively documented undertakings in human history ..."⁹

Despite this claim and the fact that NASA's Apollo mission photo numbers seem to indicate that thousands of pictures were taken, we keep seeing the same few dozen pictures in all the books on space.

Using the well-developed art of Hollywood-style special effects (FX), the astronauts could be photographed "on the Moon" in the top secret studio set up near Mercury, Nevada. Of course, there is a bit more to great FX than having the best equipment. As in any art form, the artists are always more important than their tools. The backbone of superb FX is lodged in the Hollywood professionals who devote their lives to it. Lacking access to these experts, NASA was forced to use CIA hacks — relative amateurs.

Nevertheless, they did their job well enough to pass casual inspection for many years. It worked only because we wanted to believe! As long as we had something to hang our hats on we could continue to have faith and ignore the anomalies in the evidence the photos provided. It worked — for a while!

Grissom's Final Mistake

At the time of his death Grissom was one of NASA's old-timers. He was the man who, a few short years before, certified that the astronauts had been involved in every step of the program and had been free to criticize at will and even suggest ideas for improvements. He was the man whose fatal error was no more than in being who he was: an independent thinker; a free spirit who seemed to be completely unaware that NASA had wholeheartedly opted to enact the second part of the old saying "If you can't make it, fake it!"

He had been selected as Commander of Apollo 1, the first manned flight of the Apollo series. Grissom's crew included Edward H. White and Roger B. Chaffee. White flew on Gemini 4 but Chaffee was a newcomer who had not as yet been in space or fulfilled the NASA rite of passage by denying the visibility of stars and planets.

The Handicap

Right from the beginning, NASA was operating under a tremendous handicap. They were in a space race with a nation who, they knew, had operational rockets that made ours seem like tinker toys by comparison. The Soviets started their space program in capsules that were 50 times heavier than those we were launching six months later.

Soviet capsules were closer to being compressed air tanks than flimsy space capsules. Their ships had sufficient wall strength to maintain normal atmospheric pressure inside the

craft against the zero pressure outside in space. However, since we didn't have rockets to lift that sort of weight, we couldn't afford this luxury. We had to make light, tin foil capsules just to get into the ball game.

The differential in pressure between the 14.7 psi (our normal atmospheric pressure) and the zero pressure of space amounts to 2116 pounds per square foot of outward loading on the enclosing wall of a capsule. Compare this figure with the floor of a house — which is designed to be safely loaded to only 30 pounds per square foot — and you will realize that relatively heavy metal is vital for skin and skeleton if you want to enjoy normal pressure. It is wall strength that prevents catastrophic and explosive depressurization of small capsules. The LEM's walls will be discussed in more detail later.

Breathing Mixtures

The greater lifting capacity of their rockets allowed the Soviets the luxury of using a mixture of 20 percent oxygen and 80 percent nitrogen — the equivalent to regular air. Naturally, it wasn't stored on board as bulky "compressed air". It was stored separately as liquids in cryogenic tanks. However, the nitrogen supply was smaller, since the gas is inert to the human body, and additional nitrogen is required only to help re-establish pressure when the cabin is vented to space. Oxygen tanks were larger because the only oxygen used was that small portion converted into CO₂ by the necessity of breathing. This is immediately removed from the cabin by chemicals. A great deal is also lost when the cabin is vented to space during depressurization.

Pure Oxygen

Lacking strong-walled capsules, NASA decided right from the beginning to use 50 percent oxygen and 50 percent nitrogen at 7 psi. This specification was changed in August 1962 into the use of pure oxygen at 5 psi.¹⁰

A policy shift of this nature indicates that approved design of the capsules that were manufactured was weaker than expected. The amazing thing is that NASA made this deadly decision despite testing that usually ended in disaster. One would think that after testing showed disaster one would never implement a dangerous policy. But NASA was in a race with destiny. They had no time for common sense.

NASA Tests

Here is a list of all government-sponsored testing that resulted in oxygen fires. This information was extracted from Appendix G in *MISSION TO THE MOON* written by Kennan & Harvey.

"September 9, 1962 — The first known fire occurred in the Space Cabin Simulator at Brooks Air Force Base in a chamber using 100 % oxygen at 5 psi. It was explosive and involved the CO₂ scrubber. Both occupants collapsed from smoke inhalation before being rescued."

"November 17, 1962 — Another incident using 100 % oxygen at 5 psi in a chamber at the Navy Laboratory (ACEL). There were four occupants in the chamber, but the simple replacing of a burned-out light bulb caused their clothes to catch on fire. They

escaped in 40 seconds but all suffered burns. Two were seriously injured. In addition an asbestos "safety" blanket caught fire and burned causing one man's hand to catch fire."

"July 1, 1964 — This explosion was at an AIResearch facility when they were testing an Apollo cabin air temperature sensor. No one was injured. The composition of the atmosphere and pressure isn't listed, but we have to assume 100 % oxygen (and possible pressure equal to atmospheric)."

"February 16, 1965 — This fire killed two occupants at the Navy's Experimental Diving Unit in Washington, DC. The oxygen was at 28 % and the pressure at 55.6 psi. The material in the chamber apparently supported extremely rapid combustion, driving the pressure up to 130 psi."

"April 13, 1965 — Another explosion as AIResearch was testing more Apollo equipment. Again, neither pressure or atmospheric composition is given but a polyurethane foam cushion exploded."

"April 28, 1966 — More Apollo equipment was destroyed as it was being tested under 100 % oxygen and 5 psi at the Apollo Environmental Control System in Torrance, CA."

"January 1, 1967 — The last known test was over three weeks before Grissom-Chaffee & White suffered immolation. Two men were handling 16 rabbits in a chamber of 100 % oxygen at 7.2 psi at Brooks Air Force Base and all living things died in the inferno. The cause may have been as simple as a static discharge from the rabbits fur . . . but we'll never know."

Of course, NASA's moronic decision to use pure oxygen would play a crucial part in the deadly fire on Pad 34 a few years later. Never mind that the test was classified as "non-hazardous" by NASA. Only after Grissom, White, and Chaffee died in that fire would NASA again change the specs to either 60-40 or 50-50 oxygen/nitrogen mixes at 5 psi, depending on the sources. "

In pure oxygen at normal pressure even a piece of steel wool will burn rapidly. In fact, Michael Collins claims that even stainless steel will burn.¹² As mentioned already, an asbestos blanket, normally classed as fireproof, was consumed when used to smother flames during an oxygen fire.¹³ Pure oxygen is extremely hazardous!

To successfully switch to reduced-pressure breathing of pure oxygen one must first purge the body of nitrogen. This prevents residual nitrogen left in the body from forming small bubbles which expand from the decreasing pressure. To deep sea divers this is known as the "Bends". To avoid this lethal hazard, astronauts must spend some period of time breathing 100 percent oxygen, at full atmospheric pressure, just before the mission. This is medically dangerous.

The pressure problem in a space capsule is similar, but opposite, to those encountered in a submarine. Submarine hulls are deliberately built strong to resist the increasing pressure at depth. If a submarine hull were as thin as our spacecrafts at 200-feet deep water it would require an internal pressure of 100 psi — at 300 feet a pressure is 150-psi.

Pressure Testing

The Apollo Program command capsules must be regarded as flimsy, even though they were built of titanium, which has the strength of steel and weighs half as much. I reason that if our capsules were too weak to withstand normal pressure, they must also have been too weak to keep the atmosphere from crushing the capsule on the launching pad. If this was true they had to be using 100 percent oxygen at normal pressure during the launch.

I found out that this is precisely what NASA did on all their launches. It is obvious that the present shuttles, with 50 tons of cargo capacity, could use normal pressure and regular air. However, the designers may still begrudge the few pounds of extra material in the cabin that it takes to do this. By the same token, our large diameter commercial airliners are able to maintain almost regular atmospheric pressure and don't have to resort to pure oxygen, even when flying over 40,000 feet? Neither does the SST which reaches altitudes of 60,000 feet.

To insure the integrity of the capsule, NASA subjected it to their pressure test. One would assume that they would use compressed air for this test, because the electric panels had power, and live men were inside the unit. However, when it came time to test the capsule on Pad 34, it was decided to use pure oxygen at a pressure somewhat above our atmospheric pressure of 14.7-psi. What the actual pressure was is confusing. It was either 16.7 psi according to Michael Collins, or 20.2 psi as reported by Frank Borman.¹⁴

One would think that intelligent men with "The Right Stuff" would know precisely the pressures used. But either way, there were astronauts locked inside — practicing for their first Apollo mission. After the accident NASA claimed the test was SOP (Standard Operating Procedure). In either case an idiot was in charge.

If it was SOP, then the idiot was the official who instituted and approved this test program. If not, then it was the low-level idiot in direct charge of the test who gave the order to proceed. I have no fear of a libel suit because of this accusation. The only legal defense in a libel suit is whether what you said was the truth as determined by a jury. If you were on a jury and watched steel wool explode in a 16.7 psi 100 percent oxygen atmosphere what would you decide?

I find it hard to believe that this test was SOP. In fact, I suspect that it wasn't, simply because two men with "The Right Stuff" couldn't agree. NASA telling us after the fire that it was always done that way doesn't prove a thing. NASA, like all political organizations, can always be counted on say anything to better their position. Using pure oxygen at this pressure, once the panels were alive, means that every launch was always one small spark away from disaster. Combustion in 100 percent oxygen even at low pressures is extremely rapid. At higher pressures it becomes explosive!

High Pressure Oxygen

Consider this standard procedure: burning a substance using high pressure oxygen is precisely the method used to determine the number of calories in that substance. The test procedure requires placing the sample in a strong steel pressure vessel called a "Calorimeter Bomb." The "Bomb" is placed in an insulated container holding a known quantity of water

at a known temperature. There is an electrical sparking device inside the bomb, and sufficient high pressure oxygen is added to insure complete combustion of the material.

Even relatively wet foodstuffs are quickly reduced to ashes once the electric spark initiates combustion. This process produces high pressures in the steel chamber. That's why it's called a Calorimeter Bomb. The heat is transferred to the surrounding water and the rise in temperature, according to known parameters, results in the quantity of calories (energy) derived from the substance tested.

Every time an electric switch is thrown, the induction of the electric current causes a tiny spark to jump between the two switch contacts. If the unit is explosion proof (like the switches, motors, and lighting fixtures used in hazardous or explosive locations), that spark is safely enclosed in a hermetically sealed container. If not, anything near it that is combustible can burn.

In standard electrical switches the electrical insulation is some form of plastic (hydrocarbon). All hydrocarbons can be oxidized if there is sufficient oxygen and heat to raise the temperature of some small portion of that substance beyond the flashpoint. Bear in mind that an electric spark is a plasma. Indeed, the temperature at the core of a large spark can be so high it is indeterminable.

Spontaneous Combustion

The phenomenon we call spontaneous combustion is also oxidation. Under normal conditions oxygen in the air begins to oxidize almost any material. In fact, what we call rust on metal is very slow oxidation. If the material is insulated to any degree, the heat created by the process cannot escape as fast as it is generated. The entrapped heat creates a small temperature rise which increases the rate of oxidation. If some or all of that increased heat cannot escape there is a self-escalating "loop". The temperature continues to rise until the flashpoint is reached. At that point the material bursts into flame. That's "spontaneous" combustion.

In an atmosphere containing a higher percentage of oxygen, or a higher pressure, the oxidation rate is greatly increased. It is well known that a pile of oily rags in an oxygen environment will burst into flame. In 100 percent oxygen any hydrocarbon or carbohydrate becomes potential fuel needing only a small spark or increase in heat to set it off.

The Test

On January 27, 1967 astronauts Grissom, White and Chaffee approached Pad 34 where an obsolete model of the command capsule had been installed on top of an unfueled Saturn IB rocket.¹⁵ This was the same type of rocket that had carried the smaller and lighter Gemini capsules. The capsule itself was already outmoded and would be replaced before any Apollo missions were launched.

However, this was a full "dress rehearsal". But somebody neglected to tell the maintenance people to clean out all the extremely combustible extraneous construction materials. The urgency of this test was simply that they were scheduled for a manned mission that had been repeatedly postponed. As we will see later, NASA had every intention of sending

Apollo 1, Grissom's mission, into space even though neither the Saturn V (actual moon rocket) nor the Apollo capsule had ever actually been tested in space.

Wouldn't you have smelled a rat? Perhaps Grissom was a bit worried. He got Wally Schirra to ask Joe Shea, NASA's chief administrator, to go through the test with him. "Grissom still wanted Shea to be with him in the spacecraft." ¹⁶ Shea refused because NASA couldn't patch in a fourth headset in time for the test. Is that likely? It is difficult to believe that this couldn't have been done in the 24-hour timeframe available. If I had a crew of technicians who couldn't install another headset jack in that amount of time I'd fire the whole damn crew.

The original Apollo capsule had different hatches, but by 1300 hours all three astronauts were strapped in their acceleration couches with the new hatches sealed behind them. It was later revealed that these hatches were so poorly designed that even with outside help and in a non-emergency situation, it took seven or eight minutes to open them. They were originally supposed to spend a few hours practicing throwing the proper switches at the right time in sequential response to computer simulations. However, with delay piled upon delay and everyone in a hurry, each time a switch was thrown, unnoticed, tiny sparks jumped.

During the test of the Apollo capsule on Pad 34, Grissom and his crew were in 100 percent oxygen simulating the real thing. In fact they reported a burning smell a few times earlier that day. When that happened technicians would come with "sniffers", open the hatches, but find nothing. One wonders if the review board considered that these hatch openings flushed out the smell with the fresh air admitted by opening the hatch. These incidents delayed the test, and time was running out. ¹⁷ The extraneous combustible materials may have been combining with the pressurized oxygen each time pure oxygen refilled the cabin. Oxidation makes heat, and if you stop the process that heat remains in the material. Each time you repressurize the craft the combustible material will be at a slightly higher temperature. I sense that Borman's "board of review" missed this angle.

I also feel that spontaneous combustion would have been much too subtle for the CIA. If it was a CIA hit they would have done it with an electric squib or incendiary device wired to a switch, programmed to be thrown toward the end of the test.

While the testing was going on, some mastermind in Mission Control decided to save some time. In his wisdom that unknown leader made the decision to speed up the testing. As the board of inquiry later noted, "To save time, the space agency took a short cut." What he did was simply order the capsule to be pressurized with 100 percent oxygen at either 16.7 or 20.2 psi. Notice that no name was used. The entire agency takes the blame. Such compassion by a major player!

I have great difficulty believing that apparently not one of these rocket scientists in Control, nor the astronauts themselves, knew that a Calorimeter Bomb consists of a combustible material, pressurized oxygen, and a spark. These were highly educated men who had technical degrees, who had taken chemistry courses, and who must have spent some time around welding and cutting torches that used oxygen.

I cannot understand why Grissom et al entered that capsule in the first place if they knew it was to be pressurized with oxygen over 14.7 psi. In a hospital no one is allowed to

smoke in a room where oxygen is in use. In this situation we have only a small section of a room with tiny amounts of low-pressure oxygen being used. Yet everyone seems to know of the danger. Grissom was a test pilot and engineer, while both White and Chaffee had degrees in aeronautical engineering. Apparently not one of them complained. Didn't anyone know about Calorimeter Bombs? Didn't NASA send them copies of the fire reports? Or maybe no one told them they were jacking up the pressure!

At 1745 hours (5:45 pm) Grissom was getting angry with the communication people for a static-filled, on-again-off-again communication system. At one point he ragged them, "How do you expect to get us to the moon if you people can't even hook us up with a ground station? Get with it out there." ¹⁸

In the meantime, around 6: 00 p.m., Collins had to attend a general meeting of the astronauts. Let Collins tell you about it in an incredible single paragraph. ¹⁹

"On Friday, January 27, 1967, the astronaut office was very quiet and practically deserted, in fact. Al Shepard, who ran the place, was off somewhere, and so were all the old heads. But someone had to go to the Friday staff meeting, Al's secretary pointed out, and I was the senior astronaut present, so off I headed to Slayton's office, note pad in hand, to jot down another weeks worth of trivia. Deke wasn't there either, and in his absence, Don Gregory, his assistant presided. We had just barely gotten started when the red crash phone on Deke's desk rang. Don snatched it up and listened impassively. The rest of us said nothing. Red phones were a part of my life, and when they rang it was usually a communications test or a warning of an aircraft accident or a plane aloft in trouble. After what seemed like a very long time, Don finally hung up and said very quietly, "Fire in the spacecraft." That's all he had to say. There was no doubt about which spacecraft (012) or who was in it (Grissom-White-Chaffee) or where (Pad 34 Cape Kennedy) or why (a final systems test) or what (death, the quicker the better). All I could think of was My God, such an obvious thing and yet we hadn't considered it. We worried about engines that wouldn't start or wouldn't stop; we worried about leaks; we even worried about how a flame front might propagate in weightlessness and how cabin pressure might be reduced to stop a fire in space. But right here on the ground, when we should have been most alert, we put three guys inside an untried spacecraft, strapped them into couches, locked two cumbersome hatches behind them, and left them no way of escaping a fire. Oh yes, if a booster caught fire, down below, there were elaborate if impractical, plans for escaping the holocaust by sliding down a wire, but fire inside a spacecraft itself simply couldn't happen. Yet it had happened, and why not? After all, the 100 percent oxygen environment we used in space was at least at a reduced pressure of five pounds per square inch, but on the launch pad the pressure was slightly above atmospheric, or nearly 16 psi. Light a cigarette in pure oxygen at 16 psi and you will get the surprise of your life as you watch it turn to ash in about two seconds, with all those oxygen molecules packed in there at that pressure, any material generally considered "combustible" would instead be almost explosive."

Here Collins reported that the pressure was 16 psi. Other authors went higher. A staff meeting at 6:00 p.m. on Friday night? Do you have a feeling that this Friday night staff meeting was the first and last in the long history of our government bureaucracies?

The Fire

At 6:31:03 pm, one of the astronauts smelled smoke and yelled fire. The capsule had suddenly turned into a Calorimeter Bomb. They tried their best to open the hatch. Without

panic the triple hatch which sealed them in usually took about nine minutes to open. They didn't have nine minutes. In fact, they barely had ninety seconds before their suits burned through and the deadly poisonous gasses released from the burning of modern plastics silenced them forever.

The capsule's internal pressure soared from the great quantity of hot gasses created by the quasi-explosive burning of all the combustible material. This short-term fire was so intense that it melted a silver soldered joint on the oxygen feed pipe, pouring even more oxygen into the conflagration.

At 6:31:17 p.m., 14 seconds from the first smell of smoke, the pressure reached 29 psi, and the capsule ruptured, effectively releasing the heat and damping the fire. But it was too late. They were already as good as dead.

If this was not murder and was just an example of extreme stupidity in governmental slow motion, why did government agents in rapid action raid Grissom's home before anyone knew about the fire? Why did they remove all his personal papers and his diary? Why didn't they return his diary, or any other paper with the word "Apollo" on it, when they returned some of his personal papers to his widow? And if it really took 29 psi to blow the cabin, why didn't they use regular air at higher pressure?

Also, was it really the vicissitudes of life that the outward opening hatch was coincidentally changed that very morning to one that opened inward? An inward-opening hatch meant that any inside pressure, acting outward, would prevent it from being opened — even if someone was standing by, which they weren't. It was also bolted up from the outside and lacked explosive bolts.²⁰

The Aftermath

NASA should have known better. And they did! You read earlier of the men injured in flash explosive fires in their own tests. NASA had even commissioned a report by Dr. Emanuel M. Roth which was published in 1964. Dr. Roth cited difficulties with 100 percent oxygen atmospheres even under low pressures. Any competent engineer should have known the dangers of oxygen at 16.7 or 20.2 psi. This is why I cannot believe that this was "standard operating procedure" or that Grissom and his crew knew about it. NASA not only ignored their own tests on pure low-pressure oxygen but upped the ante by increasing the pressure above atmospheric!

Kennan and Harvey had this to say, "Most U.S. scientists could not believe their ears when they learned that fact. Oxygen at such pressure comes in the category of an 'oxygen bomb:'"²¹

The 204 Board of Inquiry

A board of inquiry termed "The Apollo 204 Review Board" was quickly convened to investigate the fatal fire, and astronaut Frank Borman was appointed chairman. In effect, NASA sent the fox into the chicken house to investigate mysterious disappearances of the occupants. The board's final report was about what you might expect when an in-house investigation investigates itself. "One key to the caution which reveals itself on every

page of the Board's report is that it was written by government employees. Thompson himself was director of the space agency's Langley Research center, and no fewer than six of the eight Board members were NASA officials." ²²

The pressure of 16.7 psi is quoted from *Journey to Tranquility* in which the authors wrote that they learned the pressure of the pure oxygen in the capsule was 2 psi over atmospheric. Collins reported it as nearly 16 psi. It seems strange that NASA told two insiders, Borman and Collins, plus the authors of "Tranquility" three different capsule pressures. Apparently NASA, like the rest of us, finds it almost impossible to keep all the little white lies straight. And if it's a group lie we get the results shown in this book.

Borman writes that "We brought in every learned mind we could enlist — including a chemistry expert from Cornell,..." ²³ Didn't this expert know that oxygen has a deep and forceful desire to breed little oxides by passionately mating with hydrocarbons and carbohydrates? Didn't this so-called expert tell them that?

Borman played dumb when he was called before Congress. In testifying under oath he said, "None of us were fully aware of the hazard that existed when you combine a pure-oxygen atmosphere with the extensive distribution of combustible materials and a likely source of ignition ... and so this test ... was not classified as hazardous." ²⁴ And if Borman was as unaware of all the dangerous fires that erupted during NASA's own safety tests over the years, why did he later write about 20.2 psi oxygen in this manner: "That is an extremely dangerous environment, the equivalent of sitting on a live bomb, waiting for someone to light the fuse." ²⁵

Aldrin in his 1989 book, "MEN FROM EARTH", written 22 years after the cremation has this to say "As every high school chemistry student learns, when a smoldering match is put into a beaker of oxygen, it blazes into a spectacular flame." ²⁶

Aldrin continues telling us how there was a multitude of switches and miles of electrical wiring, all of which were easy to short and could act as a match. "But the risk was considered acceptable because, in space, the astronauts could instantly depressurize their cabin . . ." ²⁷ Hey, Buzz, didn't you claim that the reason your EVA on the Moon was late in starting was because it took so long to vent the last of the oxygen from the LEM?

What? Borman, who held a Masters in engineering and taught thermodynamics at West Point, claims nobody was aware of the danger! After all these years Aldrin now claims he knew. Obviously, either Borman is lying or Aldrin didn't have the guts to open his mouth.

When Deke Slayton was asked about the pressure test he reportedly blurted out, "Man, we've just been lucky. We've used the same test on everything we've done with the Mercury and the Gemini up to this point, and we've just been lucky as hell." ²⁸

Why do I doubt that? I suspect that everything about the pressurization test is a lie. I think that it was a one time only occurrence specially configured to suit the job at hand.

Borman contended that Ed White and his wife Pat were friends of his and that he listened to the audio tapes of the fire over and over again. Then he states, "The only comfort derived from listening to the tapes was the knowledge that the agony hadn't lasted long;

that death had come from noxious fumes before the flames reached them." ²⁹

Borman's acumen might be judged by the fact that Eastern Airlines turned into a sinking submarine when he was at the helm as CEO. Nobody dies in 14 seconds from noxious fumes. Ed White died inhaling super heated oxygen which set fire to his lungs, throat and skin the same way that technician's hand burned in the test years before. The chances are they survived for minutes and were conscious for a good part of that time. However, death was definite after the first breath.

Borman then writes about "nuts" and disgruntled employees who tried to give his committee information. "As the investigation progressed, all sorts of nuts came out of the woodwork with their own theories. There also were some serious allegations directed against North American Aviation, most of them coming from former employees with large axes to grind. They charged the company with criminal neglect and mismanagement, and we investigated each accusation thoroughly. We found that in every case we were getting input from people who simply had personal grievances against the company, with no evidence to back them up." ³⁰

That's odd! One of Borman's superiors, General Sam Phillips, also made a report in November 1966 that shredded North American Aviation. He could hardly be classified as a disgruntled employee. Speaking of classified information, Michael Gray in his book disclosed the fact that Phillips's report was classified. ³¹ Borman apparently ignored that report.

Time and time again, NASA has bragged about how open NASA was. One wonders, then, who classified this report? What could it possibly have had to do with national security? No wonder that Bill Kaysing was never able to obtain a copy. To paraphrase an old saying, the "TOP SECRET" stamp, because it reflects patriotism, has always been the last refuge of scoundrels.

On April 27, 1967 the 204 Board was still in the process of (almost) learning new things. A low-level employee named Thomas Baron had already testified in Washington and now was a target for NASA's ire. His voluminous reports were day by day accounts of North American's screw-ups and were written years earlier. It seems very strange that both Baron's and Phillips' reports disappeared. After accepting his reports, the 204 Board wrote off his testimony. By the very next evening Baron, his wife, and his stepdaughter would be dead! The two women were totally innocent, but apparently that's what they get for associating with a NASA whistle-blower.

One of the common "accidents" to governmentally-sensitive folks in Florida is the old railroad crossing gambit. There are lots of semi-deserted country roads and active railroad tracks in Florida. Usually after the grisly event, the bodies are found by someone so powerful that he can have them immediately cremated, frequently before an autopsy can be performed — which is contrary to Florida state law. And they used to tell us horror stories about the KGB! I no longer live in Florida, so if they come after me for writing these words, they will have to think up a new method.

And please note: I am not suicidal. I say that because suicide is a common cause of death in this context. For instance, there is a suspicion that another casualty of NASA is

Mrs. Pat White, who allegedly committed suicide a few years after her husband's cremation. According to post-mortem reports she wasn't suicidal either. Low-level whistle blowers die like flies, and yet General Phillips goes on to head NASA after he told basically the same story.

Borman also complained about the windows that kept fogging up on his Gemini 7 mission and on Apollo 8. North American for four straight years failed to find a solution for such a simple problem as window fogging, yet he couldn't find anything seriously wrong with them. That's about par, isn't it?

Borman was stationed at Clark Air Force base in Manila during 1952. Part of his duty was to inspect a huge warehouse that stored heavy equipment, supposedly ready to roll on an instant's notice. His inspection revealed that "there wasn't a vehicle or a piece of equipment that wasn't in deplorable shape—most of it unusable without major overhauls. The stuff had been there since the end of the war and obviously hadn't been touched since." ³²

The Captain in charge asked Borman to certify that it was in good condition, and he refused. The code of West Point is "duty and honor" and that took precedence. However, when a Colonel insisted that he sign off that the equipment was in good condition Borman caved in. "Honor" be damned. The new moral code is apparently totally dependent upon the rank of the officer who gives the order. Go along to get along!

Next, Borman, still the politician that Collins first pegged him for, tells perhaps the greatest lie of his life. He concludes, "We didn't sweep a single mistake under the rug, and to this day I'm proud of the committee's honesty and integrity." ³³ Presumably Mr. Borman had his fingers crossed when he wrote that!

The committee was still in the middle of its stately review process when on April 7, 1967, a House subcommittee was also convened to investigate the fire. The next day a very dismayed New York Times fired off a lead editorial. They used the words, "Even a high school chemistry student knows better than to play with 100% oxygen." The editorial went on to accuse NASA, in general, and those in charge of the Apollo project, in particular, of "incompetence and negligence." ³⁴

The 204 Board concluded with a real wrist spanker of a statement against NASA, "A sealed cabin, pressurized with a pure oxygen atmosphere without thought of fire hazard; an overly extensive distribution of combustible materials in the cabin; vulnerable wiring carrying spacecraft power; leaky plumbing carrying a combustible and corrosive coolant; inadequate escape provisions for the crew, and inadequate provisions for rescue or medical assistance."

Both committees would prove about as useful as a screen door in space (and about as effective as the politicians who manned the Warren Commission's investigation of the Kennedy assassination a few years before). Like all government inquisitions, they used a method best described as "let's all gang-bang the whistle-blower."

The entire nation saw this process repeated in all its unadulterated glory during the Anita Hill/Clarence Thomas hearings where she exercised futility trying to derail what turned

out to be President G. Bush Sr.'s last chance to stack the Supreme Court for the Moral Majority. What apparently no one wanted to understand was that she wasn't testifying for revenge. His actions didn't warrant revenge. She spoke out because of his hypocrisy. At the time of the incidents described by Ms. Hill, Thomas was the head of a federal bureaucracy charged with stamping out sexual harassment.

Along with the few honest good guys on any government committee, who always seem to be trying hard to discover the truth, there are always a couple of truth stoppers and their cohorts, the obfuscators. When any witness dares to try to tell them what they don't want to hear the obfuscators pipe up with a flurry of verbal left jabs to keep them off balance until the truth stoppers can finish them off.

At the beginning of the Mercury Program, NASA tests on pure oxygen proved that the safe pressure limit for breathing was between 2.9 and 6.67 psi. They also concluded that pressures "outside these limits would cause severe, if not permanent damage."³⁵ In plain English, murder begins at 6.7 psi!

Kennan & Harvey have this to say about the fatal test on the capsule: "The day of the plugs-out test, the TV camera inside the space-craft, which was an important piece of flight and test equipment, was absent; its retaining brackets had somehow been bent during installation."³⁶

These authors never called it murder, but they continued with this statement: "It is of the greatest significance that the fire extinguishers were located in that (008) spacecraft during its testing. Not only were fire extinguishers included but fire resistant teflon sheets were draped over wire bundles and the astronaut's couches. These particular items, non flight items, were conspicuously absent in command module 012 during the fatal plugs-out test on January 27, 1967."³⁷

They also summed up the test with these statements.

"It was the first and only use of the new three piece hatch."

"It was the first plugs-out test in which as many as three hatches were closed on a crew in an oxygen atmosphere at a pressure of sixteen pounds per square inch, ..."

"It was the first occasion of the Apollo emergency escape drill under all-out pre-launch conditions."

"It was the first occasion when certain non flight flammable materials, such as two foam rubber cushions - were placed in the cockpit."³⁸

Later NASA would rule out the use of any material which could be ignited by spark at 400 degree F in pure oxygen at 16.7 PSI.³⁹ "They included the couch padding, to which astronaut White's body was welded by the heat: this, it emerged, could be ignited by a spark at 250 F."⁴⁰ Notice they still had every intention of using 16.7 psi oxygen. Or was it 20.2 psi?

If a civilian corporation killed three men by extreme stupidity, there would be criminal proceedings, trials, and fines. But because the government is the suspected culpable party nothing happens. To repeat: I cannot believe that in such a highly technical field as space that even the lowest paid technician would not have questioned the moronic decision to use 100 percent oxygen to try a pressure test on a capsule with live electric panels, as well as locked-in and strapped-down astronauts; especially on a capsule that would never fly.

At the time there was talk that the Apollo Program might be scratched. But even if 50 people had been killed, the operation would have continued with no more than a brief pause, because the bucks were too big. As Collins points out, "I don't think the fire delayed the first lunar landing one day, because it took until mid-1969 to get all the problems solved in areas completely unrelated to the fire." ⁴¹

According to the newspapers, NASA committed another unequivocal example of utter stupidity on March 19, 1981. They had a chamber on the Space Shuttle Columbia filled with nitrogen, and seven people entered it. Two died and five were injured.

The cremation was mass murder. If not it was unconscionable stupidity. We may never know for sure. What I am sure of is that the entire Apollo Program was a show; a simulation produced by the CIA, directed by NASA, invested in by Congress, and paid for by Mr. and Mrs. American Taxpayer! To protect their multi-billion dollar income the CIA murdered three astronauts on Pad 34, plus four more on plane rides and one in a car.

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SPACE NAVIGATION

When man first journeyed out onto water, he navigated in the same manner that he used on land: he saw where he wanted to go and pushed himself in that direction. It was an aiming process. To this day, whenever there is good visibility and deep water in a harbor or river, this is still the method used. It is called piloting or the taking of visual bearings. Over the years many piloting aids have been developed such as the compass, depth finders, charts, buoys, and lighthouses. With these instruments the pilot determines his present location and aims the boat to the desired location, whether it be a fishing hole out of sight of land or a dock across a broad bay.

Centuries passed and boats became safer, enabling man to venture further from shore. But even with good visibility, once out of sight of land, every wave looks alike. Even when men tried to steer a straight course a ship would wander, pushed off course by wind and ocean current. Man slowly developed crude celestial navigation using the observed east to west motions of the Sun, Moon, and stars, all of which were only usable under conditions of good visibility.

Whether on land, on sea or in the air, the only way you get to your destination, if it can't be seen, is by knowing both your approximate current position and the location of your destination. Once this information is known, in decent weather, it becomes a simple matter of pointing yourself in the proper direction and going there.

At sea, out of sight of land, there are two ways to do this. The ancient Polynesians used the stars with the knowledge that night after night they parade over the Earth in almost exactly the same great circles. The deviation from this course varies only slightly night to night during the entire year, and the pattern repeats year after year.

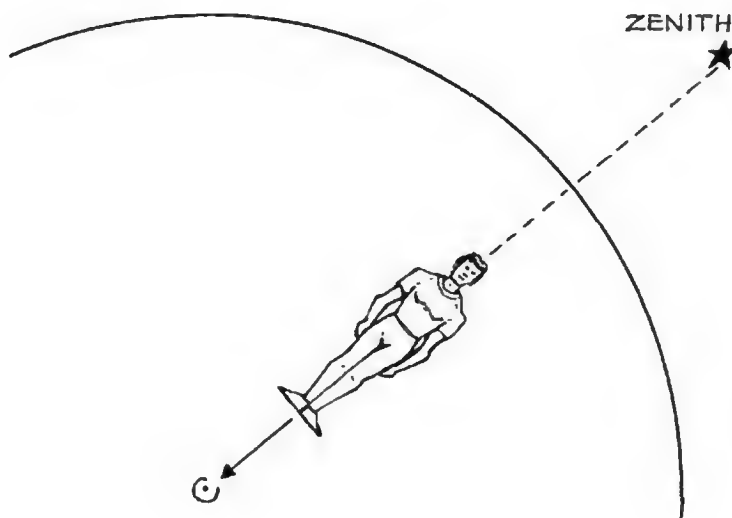
The Polynesians learned which stars culminated (reached the zenith) directly overhead a given island. Since a star will do the same thing for hundreds or thousands of years, that star becomes a beacon for the world's tallest lighthouse whose footings are located in one particular geographic location. By sailing to the west of that rising star they could zero in on their destination without compass or sextant. In this manner, island by island, they learned to navigate the immense Pacific while European seaman hardly dared leave sight of the coasts.

Asiatic seamen learned similar astral navigation as there is evidence that the Chinese reached the West Coast of both North and South America. Eventually western astronomers developed astronomical charts of the Sun that showed its latitude on each particular day. Since the Sun changes latitude at less than a quarter of a degree per day, if you measure the altitude of the Sun at high noon you can use this information to create a chart or later to find your latitude. It involves no more than subtracting the Sun's angle of elevation at high noon (culmination) from 90° then adding it to the Sun's known latitude that day. Before we get to navigation in space, it's helpful to know a little more about earthly navigation.

The angle of elevation was first measured by knotted strings held in the hands. The cross staff evolved into the octant, and eventually became the sextant that is still in use. The bands of latitude are natural divisions and are determined by the equator and poles. Longi-

tude is artificial. It starts with an arbitrarily chosen point and had to wait for the development of an accurate seagoing clock before it was helpful for navigation. Once the west had an accurate sea going clock and it's astronomers provided adequate almanacs or ephemerides, we began to use the stars for navigation.

The GP (Geographical Position) of any celestial body is the ground point directly under a body at its zenith (directly overhead) as shown below.



To determine a GP it is necessary to have a sextant to measure the angle of elevation of that body (the Sun, planets, selected navigational stars, or the Moon) from our horizon. The exact time of that "shot" (observation) must also be known. From that data you can find the geographic position (GP) of the body from an almanac.

An almanac consists of a series of tables prepared by astronomers that show the positions of the Sun, Moon, major planets, and the navigational stars every hour of every day for the year. When an observation isn't made on an even hour, the GP can be easily extrapolated from the tables.

With the advent of electronic navigation systems, celestial navigation became unnecessary. However, just like the optical method, these systems (like loran) also depend on measuring your distance from the known geographic locations of land-based transmitters. In general, each of these systems requires the measurements from three different bodies for a fix. The exception to this rule is the use of a high noon shot of the Sun. In itself, it gives you latitude, and if you know the time it also gives you longitude.

Each system generates a single circular line of position (LOP) at a radius equal to your distance from the observed body's geographic location at the instant the observation or radio reading was made. It is axiomatic that you could be anywhere on one particular line.

Suppose that you knew you were 35° away from the geographical position of a transmitter located at 45° N latitude and 30° W longitude. If you had a large globe and a large

compass you could set the compass to that arc distance by laying out along the equator. Then you could stab the compass point into that 45° N and 30° W and draw a large penciled circle directly on the globe. This is LOP 1 as shown on the first drawing.

The second transmitter or star is located at 30° N and 30° E at a distance from you of 15°. You reset the compass to that arc distance and stab the point into the above location and again draw a full circle which is LOP 2 as shown in the second drawing.

This second circle intersects LOP 1 at points A and B. Your position is close to either of the two intersections.

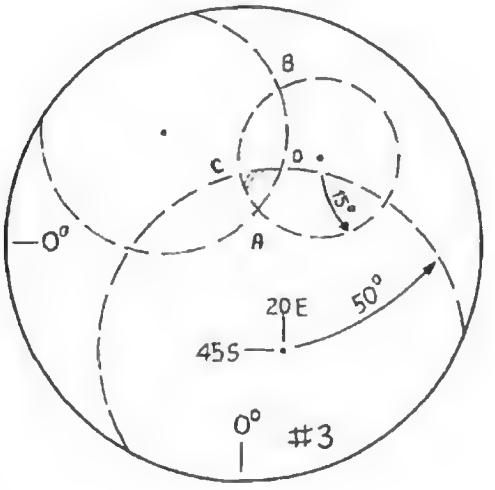
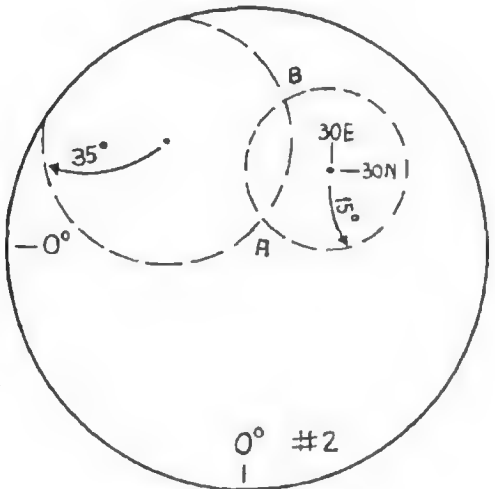
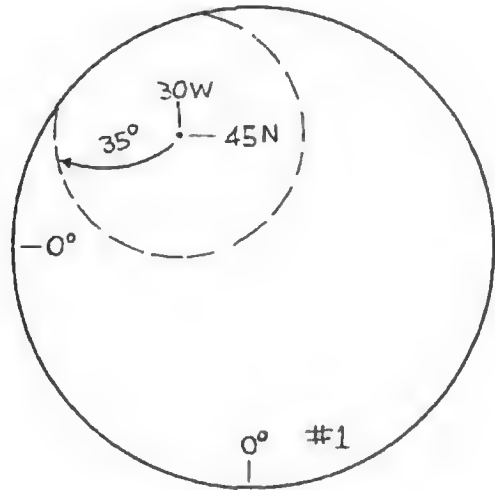
You have a third observation (shown in the third drawing) which places you at 50 degrees from 45° S and 20° E. You set the compass to 50° stab it into the above location and draw LOP 3.

LOP 3 intersects at the previous LOPs at points C and D, giving us a small shaded spherical triangle. You are located in that area. If the triangle is about a degree wide, then your uncertainty in position is about 30 nautical miles.

In an actual trial you could wind up with an uncertainty of only a few miles. Considering the size of the world, this is not much of an error. Navigators on small boats regularly work with sextants and Sight Reduction Tables and get their fixes to this accuracy.

The lines of position are configured arithmetically by both systems using spherical trigonometry as the basis of calculations. All navigation is based on intersecting LOPs, even the SATNAV system developed in the early 1960s.

This system works by an onboard combination of radio receiver and computer. The data used is transmitted in bursts from a rapidly moving satellite which is in a polar orbit. The continuous bursts of data also contain time signals and the satellite's known position. The ship's relatively slow moving or stationary receiver receives this data and measures the doppler shifts in the sequential rapid transmissions caused by the relative motion between your receiver and the satellite.



The internal computer performs a series of rather complex calculations on the changing frequency of the transmissions from that satellite. It then draws mathematical LOPs, finds the intersection, and displays or prints your position, velocity, and much more. The accuracy to a ground station can be about 50 meters (yards) and to ships at sea 200 yards. However it wasn't until late in 1971 that this type of accuracy was achieved. ¹

The one thing all three of these systems have in common is that the lines of position are all drawn on the surface of the Earth, which drastically reduces the number of possible positions. Even if you are in an airplane or submarine, your position is, relatively speaking, on the Earth's surface. A surface is further divided into land and sea areas which are all additional reference points when we are trying for a fix. The Earth also has a magnetic field that tells us north from south, as well as celestial bodies that appear to rotate from east to west as the day progresses.

Our celestial navigation by sextant depends upon our ability to "shoot" (measure angle of elevation from the horizon) certain of the brighter navigational stars whose geographical positions are easily determined. The navigator picks them out through familiarity with the various constellations, which, though the stars do move, change shape so slowly that a lifetime could pass before any change could be detected by so crude an instrument as even the best sextant in the world.

With a sextant you can shoot a particular star and then correct the angle for various mechanical and observational errors. What you really want is the angular distance of the star from your zenith. But since the horizon is 90° from your zenith, you can subtract your measured angle and determine the distance of that star's zenith from yours. From this you can get an LOP just like we did in drawing # 1. Repetition of this process, using other stars, will develop a fix as shown in drawing # 3.

Now let's turn to navigating in space. The only thing that the stars in any constellation have in common is that they all share the same general direction from Earth. They have little else in common except that they are all a part of our galaxy. Although each star itself is in very rapid motion in relation to our Sun and the rest of the stars in that particular configuration we call a constellation, they are so distant from our Earth that they seem to be stationary. Were this not true, the "fixed" stars of constellations would become unrecognizable in a short period of time. We know from historical records that they stay the same.

Michael Collins said, "The basic idea behind the Apollo guidance and navigation system was simple enough. It all began with the stars, whose position in inertial space was well known and unchanging.... They are so far away, of course, that they appear the same whether one is on earth or a mere lunar distance away." ²

While preparing for the Moon landings he claimed that navigation was his personal hair shirt. He goes on to say, "I had made several trips to Massachusetts Institute of Technology near Boston, and had tried my level best to suffer through a couple of weeks of "simple" explanations of the system by their experts, but I always came away shaking my head." ³

Perhaps he felt he was being told nonsense something like, "The framus wittigates on the thrum rod activating the holcroid. Once it dizzies you are halfway home." Over the

years whenever I run into something that doesn't make sense I have great problems with it. I cannot memorize it and I can't work with it.

For their navigation package NASA went to MIT early in the game and asked for a method that would give the Apollo program the ability to go to the Moon and back. A couple of professors produced the package on time. In fact it was one of the few times that anyone met a NASA schedule.

Michael Collins was designated the navigator for Apollo 11. In his book he lists the 37 navigation stars they were to use, plus their corresponding octal numbers which identified them to the computers. Here's how Michael explains that navigation package.

"The astronaut, peering out through either his telescope or his sextant finds one of the chosen few, superimposes a + on it, and pushes a button at the instant of perfect alignment. He then tells the computer which star it was, by numbers. Repeating this process on a second star allows the computer and the platform to determine which way the spacecraft is pointing. So we now know which way is up? Well, not exactly, because "up" is a rather fragile concept meaning away from the center of the earth, a direction opposite the gravity vector used to clutch us tightly by. But suppose we cannot even see the earth in our window, suppose we are floating free of earth's gravity. What now, M.I.T.? Back to our friendly stars. We simply define a new up-down and left-right, using the stars in place of earth. All will be well as long as we all play the game by the same rules, as long as the ground controllers send us instructions using the same stellar frame of reference. Now we are free of all terrestrial conventions and can correct our course to and from the Moon by pointing in the proper direction relative to the stars." ⁴

Collins seems to be saying that the sextant had a cross hair in its optics. But sextants don't have cross-hairs. Curiously, I went sniffing through his book and found out that sure enough he was talking about a sextant. Almost 100 pages later he continues:

"Unlike Gemini, however, Apollo has a fancy computer tied to the optics, and now I call on it for help; it responds by swinging the sextant around until it points at where it thinks Menkent is. Aha! There it is, in plain view, and it's a simple task for me to align the cross-hairs precisely on it and push a button at the instant of alignment. Now I repeat the process using Nunki, and the computer pats me on the back by flashing the information that my measurements differ from its stored star angle data by .01 degree. It displays this information as 00001. In M.I.T.-ese, a perfect reading of 00000 is called five balls." ⁵

Aha! There it is, in plain view: he does claim his sextant has a cross-hair, but this cannot be true! A sextant is an instrument that uses mirrors mounted on a calibrated movable leg. The essence of the instrument is to superimpose one object over the image of another thereby measuring the angle between them. On Earth, one of the objects is usually the horizon but here he is measuring the arc distance between two stars. As I said, there is no reason to have a cross-hair.

The instrument he probably means is a theodolite. This is a telescope with cross hairs with accuracy greater than a sextant; although it is extremely hard to believe that a pilot turned astronaut doesn't know a sextant from a theodolite.

All the measurement of the arc angle between two stars could do was align the capsule. That was done by azimuth and elevation by comparison to the ship's IMU (Internal Measuring Unit). The stars are unchanging to instruments as gross as the finest theodolites in the world; Collins accomplished nothing more than allowing them to know the ship's heading to the accuracy with which the shot was made.

The stored angles they speak of are the arc angles of separation between any two of the navigation stars. The "five balls" was part of the razzle-dazzle in that they only told whether the shots were accurate or not. It was an obfuscation, and this man — who was specially trained by MIT in space navigation — never figured it out.

Imagine that your ship is in a very high orbit around the Earth. Also imagine that you have a gunsight right down the center of the ship. Now you point the whole ship at one particular star and then take great pains to damp out all the ship's motions so you're still "aimed" at that star. After one orbit, as you came out from behind the Earth, you look for that star. Would you be shocked to see that the star was still in the gun sight? In fact, would you be surprised to see it stay there, day after day, no matter the time period? Six months later the Earth will have carried you halfway around the solar system, but your ship would still be pointing at that star. In fact, that same star should be fixed in your gunsight for years.

We are familiar with the astronauts speaking of sequential sunrises and sunsets and we can picture this happening as we look out a window. However, even if the ship were not in an axial rotation of 18° per minute, this still couldn't happen. Since the ship's orientation cannot change during the orbit, even if the cockpit was loaded with windows, there would come a time when the Earth was at the rear of the ship. Only a spaceship in powered flight could follow its nose around a planet. If it were in orbit it could not do this without fracturing Newton's First Law of Motion. The law says that a body in motion tends to stay in motion.

Each particle of that space ship is a body of mass, and gravity (whatever it is) treats each without preference. For the nose to be more attracted than the tail would violate that law. But, while none of the astronauts seem to say they look out the same window, you are led to believe this is what they are describing. Only in science fiction films can a Star Trek-type ship orbit a planet nose first.

Yet on the Gemini 12 mission that's precisely what was claimed. In this case the capsule wasn't following its nose; it had its nose pointed down at Earth. In fact, they also had the Agena target ship doing the same thing. While they were docked to the Agena, Buzz Aldrin and Jim Lovell gave the Agena commands to assume a vertical position. They then undocked, backed away, and made taut the tether they had fastened to the Agena. The next 2 hours were spent steadying the capsule so that it would remain in the same position relative to Earth.

After two more orbits they let go of the Agena, ". . . and there we were — two dead vehicles captured by gravity in a vertical position going around the Earth." ⁶ How can this be?

Yet even in drawings that show orbiting capsules in *The Illustrated Encyclopedia of*

SPACE TECHNOLOGY each capsule flies around the Earth maintaining its attitude by rotating once each orbit in relation to the surface of Earth instead of to the rest of the universe as it must actually do.

Michael Collins said the stars are unchanging. So unchanging that, to this day, we can only directly measure the distance to less than ten thousand stars out of the billions that surround us. This measurement can be made only because of the difference in apparent position of a star in relation to stars that are optically close to it but which are far more distant from Earth. Only after the Earth has moved 186 million miles to the other side of the sun in its orbit can the movement be measured.

This angular shift is called the parallax of a star. It's so small that it can never be measured by any device that mechanically divides the circle like a sextant or theodolite. Parallax is measurable only by photographic methods. It can't be eyeballed. The measurement is accomplished by optically enlarging photos taken by astronomical telescopes at each extreme of our orbit. The photos are then compared. If a star shows any displacement the magnified movement is delicately measured and compared to the known arc distance separation of the adjacent stars that haven't "moved" in that same photo. The greater the displacement (parallax), the closer the star.

Its actual distance can then be calculated by plane trigonometry, using the distance the Earth moves in six months as the baseline (186 million miles) and the angle of displacement measured from the photos.

Alpha Centauri, which appears to be one star seen by the naked eye, is actually a triple star system. At 4.3 lightyears distance from Earth it has the greatest parallax of any star. When measured by the 93 million miles the Earth moves during one half of an orbit it shows a parallax of .75 seconds of arc.

If we tried to use the distance to the Moon (239,000-miles) as a baseline the angle would be 389 times smaller, or .0019 seconds of arc. On page 248 the 1993 World Almanac lists the parallax of almost 100 of the closest stars, and the smallest parallax listed is .01 seconds of arc. So Mr. Collins, regardless of what you were told, a cross-haired sextant, couldn't possibly have measured these angles. Nor can anyone navigate the solar system using a mechanical division of the circle on the movement of even the closest stars.

Collins says he was thrilled when the unit flipped up its five balls in praise, but this represented .01° accuracy — not an exceptional result by today's standards. There are 60 nautical miles to a degree and .01° equal .6-nautical miles. Many navigators on small wave-tossed boats equal this performance. The SATNAV system with its 50-meter accuracy makes .6 nautical miles look amateurish. The new surveying SATNAV instruments claim accuracy within inches. In the next section we will see how that .01° accuracy compares with the rest of NASA's claims.

Collins seems to believe that his measurements resulted in a navigational fix. He says, "For example, I was trained to navigate back from the moon by using my sextant to measure the angles of five selected stars and the Earth's horizon; however there was no way I could determine our position as accurately as the giant earth-based radars,..." ⁷

He then correctly added, "Our own ability to navigate home independent of Houston is very poor when we are close to the moon, so for the time being we are dependent on earth tracking for our position." ⁸

In the next section we will examine the actual ability of radar to have fixed their position. In his new book LIFTOFF he admits, "By comparing the position of the stars with the stable table [IMU], and noting the gimbal angles, it was possible to calculate the direction in which the space craft was pointed. This procedure did not explain where in space the craft was located, only the direction it was pointed." ⁹

Then he goes on to tell us that the where was given by three accelerometers that sense motion and update the position by computer calculation. However, he writes, "In actual practice the state vector was loaded into the Command Module computer on the launch pad and updated periodically in flight by information telemetered from the ground." ¹⁰

As I read about NASA's MIT way of lunar navigation I began to wonder how I would navigate to the Moon. It took about three days to dissect their methods, and another three days of insanity of trying to create my own. I became more confused with each passing hour until I just gave up one night and went to bed early. I had a dream in which I was lost in space. In desperation I looked out the window and saw the clearly visible planets and Earth. I wished I was in a boat because there you can steer for anything you can see. Then it dawned on me that celestial navigation had to be invented on Earth because once out of sight of land every wave looks like every other wave. All I had to do was aim for the Earth and tell the computer to give me a little Kentucky windage for lead.

I realized that there are no mists, storms, or fogs in space to hide my destination. Despite what the astronauts claim, one can see the sun, stars and planets all the time by just changing windows. Provided one has a little fuel to waste, all you have to do is lead your target and point the nose that way.

For more concise navigation the equatorial plane would have to be defined by at least three stars which are coincident with it and by simply measuring the azimuths and elevations to any three planets. Then by consulting an appropriate almanac we could accurately locate our position.

ADDENDUM 12/96

All navigation is based on our ability to dissect the circle. Our mathematical ability to do this is magnitudes of order past our physical ability. As Collins finally admitted, the only thing a star can do is to determine the axial roll, pitch, and yaw (attitude) of a space ship. The astronauts have always claimed that Harth radar was used to fix their position. This is impossible! And although I tried for years to work out a simple method of space navigation based on the observation of the planets I repeatedly failed. It probably can be done but because the planes of the planets are tilted to ours it introduces one more factor. By the way, the Moon also bobs up and down like a merry-go-round horse in an 18-year period called the Saros cycle.

I have just figured out that this radar business was just another NASA half-truth and that the only accurate method would be to use three or more antennas as distance measuring equipment (DME). Naturally they would all have to be located on the hemisphere that was in visual sight of the ship at the time. The huge radio dishes would have been preferred because they are directional and can seek and peak a signal but other antennas would also have worked. All they needed then was to know the geodetic distances between the antennas and the exact time the ship's signal was sent. This could have been done either by transponder responding to a signal from a master antenna, or by a very accurate shipboard clock. The resulting accuracy in position could be less than 100 feet. By using this method, depends on electronically dividing a second instead of physically dividing a circle.

The hard part would be determining the direction and magnitude of the engine burn. This is because the ship is being influenced simultaneously by Earth, Sun, and Moon, and all of these forces are changing as the ship's position changes. In addition, both Moon and Earth are also moving. Complicated, yes, but not impossible. Because of the half-truths concerning the radar fixes, I had begun to doubt even the unmanned probes.

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EVERY SHOT - A HOLE IN ONE

Despite the fact that NASA's space navigation process was something of a sham, they claimed astounding accuracy in everything they did. Nine times in a row the Apollo capsules slipped into lunar orbit without needing a major burn to correct their trajectory. Then they elaborated on their accuracy. The LEM, with its center of gravity far above the single rocket engine powering it, landed within spitting distance of the target site five out of six times. It was guided by Houston Ground Control operating at a distance of 230,000 miles. All this accuracy was at the end of a radio and/or radar transmission loop of two and a half seconds duration. Yet 25 years later, they still can't land the shuttle here on Earth if there are clouds over Kennedy Spaceport!

More importantly, six times in a row the top half of that awkward LEM machine made precise rendezvous with the command capsule after lifting off from the lunar surface. All this using a dynamically unbalanced vehicle. To top off the phenomenal navigation and micro-control of their rockets, they made nine deadly-accurate re-entries into the Earth's atmosphere, again apparently without the need for any major corrections.

Once upon a time I was a young, good-looking carpenter. A rich middle-aged golfer hired me to frame and sheathe a big lawn shed over the weekend. I arrived at his place at seven on Saturday morning and started the job. When he came out he asked me if I was a golfing man. I told him that being a caddy when I was a kid was as close as I cared to get to the game. His superior smile told me all I needed to know, but then he introduced me to my "helper" who blushed. She was his gorgeous young wife. Then he left to catch a fast eighteen at the local links.

By nine a.m. his wife and I were old friends as she helped me hold up and plumb and brace the walls. Once the braces were set I intended to make my move, but his car zipped into the driveway. Damn! He must have seen my eyes light up when he introduced us, or he knew her better than I did. Exiting his car, he wore a different kind of smile as he proudly handed me his score card. The man had played only nine holes on one of the roughest courses in the county. Imagine that! On a busy Saturday he had raced through the front nine in about an hour. Not only that, according to his card, he had scored a hole in one on each tee.

I asked why he hadn't played the other nine holes? He smiled and said, "I quit the game while I was ahead." Looking back — with twenty twenty hindsight — NASA did the same darn thing: scored nine holes in one and quit the game.

The authors of most of the books I read for reference (over and over again) accepted every pronouncement that NASA made without question. They even embraced their astounding navigational accuracy! It was as if Moses himself pointed out each law on the tablets as God enunciated them. I also began to suspect that maintaining a governmental press card is a matter of practicing the philosophy of the three monkey brothers (Speak, See, and Hear) whose last names are No-Evil. In any case, it seems every author suspended his critical faculties when NASA spoke.

Michael Collins, the navigator on Apollo 11, waxed ecstatic when he claimed: "On the return trip, the atmospheric "re-entry corridor" or zone of survivability, or whatever you wanted to call it, was only forty miles thick, and hitting a forty-mile target from 230,000 miles is like trying to split a human hair with a razor blade thrown from a distance of twenty feet. Granted, the primary responsibility for keeping the razor blade aimed precisely toward the absolute center of the hair would be the job of powerful ground tracking radars, coupled to gigantic computer complexes... The key to it would involve measuring the angle between a selected star and the moon's or earth's horizon, but how accurately could this be done?" ¹

Ostensibly, on the outwardbound trip, our Earth based radar would have had a distance reading on the capsule until it was out of range. That distance was surely much less than 10,000 miles. After that only a radar transponder could accurately give its distance almost all the way to the Moon. However, even with a transponder, nothing we had then, or have now, could have given Houston an accurate bearing. Without that, all that could have been known was that the ship was somewhere at the base of a large, rapidly expanding cone.

The power of a radar transmitter to hit the Moon is not in dispute here. Collins noted, "As early as 1963, the DSIF had bounced a radar signal off the planet Mercury, over 60 million miles away, so we weren't too concerned about its power, but its accuracy was of vital concern to those of us who would be navigating with its help." ²

Real accuracy of bearing, for space navigation, is something that radar didn't possess, doesn't possess, and never will possess. A radar beam simply spreads too much for the exact accuracy required by space navigation. Even light spreads. If you take a powerful flashlight with a 3-inch parabolic reflector and shine it at your feet, the spot of light is almost the same diameter as the lens itself. Shine it across the street and the beam has spread to 24 inches. It spreads even though the reason for the imperfect parabolic reflector is to keep the light rays as parallel as possible. The same imperfections apply to radars.

Yet the Apollo 10 carrying John Young, Tom Stafford, and Eugene Cernan was allegedly tracked by radar as they came around from the back side of the Moon, after the LEM had separated from the command capsule. Peter Bond said "... the Madrid tracking station picked up two craft flying in formation as they rounded the east limb of the moon." ³

Most of us think that a laser beam is a coherent beam of absolutely parallel light rays. It is coherent but the parallel part is not precisely true. Even laser light spreads slightly. According to Richard Lewis, one of Neil Armstrong's jobs was to set up a 17.9-inch square laser reflector on the Moon so that we would know within 75 meters the distance of the Moon. When the Earth laser was "Aimed and fired through the telescopes, the laser beam made a splash of red light on the Moon about 2 miles in diameter encompassing the mirror."

4

Working out the trig, we find that the each edge of the beam dispersed $.000239^\circ$. ⁵ If such a test was actually made, a reflector could have been placed on the Moon by a probe just the same way that Surveyor III was landed. This practical demonstration shows that neither beam, light, nor radio waves, consists of parallel beams. In fact, current radar beams have a horizontal beam width that ranges from $.65$ to 2° and a vertical width from 15

to 30°. This accuracy was current about a decade after the Moon shots ended.⁶

At the average distance of the Moon, Earth's radar beams were a minimum of 2711 miles in diameter.⁷ Yet NASA claims they were able to detect the command module at that range. Richard Lewis in writing about the Apollo 12 mission reports, "The Control Room people exhaled with an audible sigh. Conrad reported that his instruments showed Apollo 12 to be in a 170 by 61.8 mile orbit. Earth radar refined this to 168.8 and 62.7 miles (nautical)."⁸

To make such a claim NASA had to be able to resolve, in range, a virtual fly speck of a command ship orbiting that close to the Moon. And, at the same time, they had to resolve the bearing. Range without bearing means as little as does bearing without range. The American Practical Navigator has this to say about resolution of bearing when speaking of using radar to navigate. "However, if a visual bearing is available, it should be more reliable than one obtained by radar."⁹ Visual bearings are usually run with a pelorus which is nothing more than some type of "gunsight" affixed to a base that is divided by degree marks. A quarter of a degree in accuracy is considered excellent.

Without getting into the technicalities of radar pulse lengths, which determine resolution of range, let us examine an operator's radar screen. It is a CRT (cathode ray tube) that displays the target as a blip of light. If Houston had 24-inch screens at that time, (very doubtful) half the screen's diameter would have represented about 240,000 miles. If detection were possible the command module at a distance of 60 miles from the Moon would have made a blip about .003-inches away from the background bounce that represented the Moon (the diameter of a human hair).¹⁰ Even if the capsule was caught at the edge of the Moon, how did the technicians measure that on a curved glass screen? And how many times could they electronically change the scale?

In a book by NASA engineers published in 1963, they write about radar altimeters. We find, "The range is limited to near orbital altitudes of a few hundred kilometers above the surface."¹¹

In a similar situation Skylab was launched on May 14, 1973. It had an attitude problem (like me). Despite the fact that its orbit was fixed close to Earth, it still needed constant accuracy in alignment. For this purpose it carried two systems, one composed of control-moment gyroscopes (CMG), and the other, a thruster attitude control system (TACS). David Baker said this about Skylab's attitude problem, "Yet although the combined CMG/TACS equipment could achieve pointing accuracy of (plus or minus 2 degrees), the sensitive solar telescopes needed a much finer targeting system than that."¹²

Yet, in page 373 of his book, Collins claimed the Apollo missions operated at .01° accuracy! Did NASA forget how to make such an accurate IMU (Inertial Measuring Unit) between the launch of Apollo 17 and the launch of Skylab? Or did NASA lie and give Collins a navigational figure 200 times more accurate than reality allowed? Or did Collins lie? Remember it takes five balls to shoot for the moon!

Time after time during the Apollo missions, NASA described the course correction "burn" performed halfway to the Moon as 'minimal'. At the start of each trip, using this plus or minus 2° standard for an Apollo mission, I calculate a circle of uncertainty at the end of the

239,000-mile trip at 16,692 miles in diameter.¹³

At the halfway mark the circle of uncertainty around the Moon would be 8346 miles in diameter. One could be over 4,100 miles off course and possibly only detect half of it. A burn to change inertial vector of 50 tons of a space ship by a few degrees, would certainly not be a small affair, because the center of mass would want to stay on that old course.

Here on Earth our vehicles rub away inertial vectors by friction. A car does it with tires that scrub by friction on the roadway as it changes direction; an airplane by the resistance or friction of the air developed in banking; and a boat by the high friction of the water. However, in space there is no friction! Cancellation of the inertial vector requires a burn at right angles to the course powerful enough to accelerate the ship so that the center of mass is on a new vector heading for the lunar ring of entry. More importantly, an error of this magnitude would cause many more frequent adjustments in course.

From the Earth, the Moon's area of this circle of uncertainty is 218,829,885 square miles.¹⁴ To find the odds of hitting the entry target ring around the Moon we must first find the area of the plane surface of the Moon. It is 3,664,353 square miles.¹⁵ Collins claims the ring of return to Earth is only 40 miles thick, and if I generously allow the ring of entry to the Moon to be 5 times that size (200 miles), the total area encompassed would be 5,147,185 square miles.¹⁶ Subtracting the Moon's area from this leaves us with a target area of 1,482,832 square miles.¹⁷ This seems rather large. However, in comparison with the 218,829,885 square miles of uncertainty we find the probability for hitting that ring with only one burn to be — .67 percent.¹⁸

If NASA made no other corrections, as they claim, they would have only one chance in 147 of sliding into the lunar ring of entry. This figure is derived by comparing the area of the lunar entry zone and the area of uncertainty.¹⁹ To claim to have done exactly this, eight times in a row, against odds such as these, boggles the mind — not to mention Murphy's Law!

It is even more unbelievable that Houston, at the long end of a 1.3-second transmission time lag, was supposed to make Go-No-Go lunar landing decision for each of the LEMs. This means that anything transmitted took 1.3 seconds to get to Houston, then after a decision was made, it took another 1.3 seconds to get the information back. Would you like to drive in traffic like that?

Harry Hurt writes how the LEM was roughly 7,000 feet above the Moon's surface waiting for the Go-No go decision from Houston. "According to ground based radar, the spacecraft was diving toward the lunar surface a good fifteen mph (twenty-three feet per second) faster than called for in the flight plan."²⁰ Wow! Their resolution in range was better than anything ever done before. Or since! Not only could that radar tell its exact altitude, it could also divine its velocity down to one foot per second. Wow!

Despite all this exactness, the Eagle Lander of Apollo 11 fame missed the chosen landing spot. Michael Collins writes, "Of course, the ground can take its own measurements as well, but it has no way of really judging where the LM came down, except by comparing Neil and Buzz's description of their surrounding terrain (lurain?) with the rather crude maps Houston has."²¹ (By "ground" Collins means "mission control").

By what magic could this happen? In fact, the next day Houston still couldn't figure out exactly where the Eagle had landed. "For \$64,000, we are still trying to work out the location of your landing site, Tranquillity Base. We think it is located on LAM-2 chart at Juliet 0.5 and 7.8 ... we are wondering if Neil or Buzz had observed any additional landmarks ... which would confirm or disprove this." Collins continues, "No wonder I couldn't find the LM; nobody seems to know where the bugger came down!" ²²

Then General S. Phillips, the man who originally made the incriminating notes on North American Aviation, and who was now head of NASA, issued an edict. He demanded pinpoint landings from then on despite lunar Mascons (abrupt gravity changes). One of NASA's navigation experts, Emil Schiesser, then proposed to track the spacecraft's orbit by the doppler effects created by their radio transmissions as the spacecraft moved. They had all the Apollo 11 transmissions on tape. He said he could use the minute frequency shifts to calculate the orbit.

"With this predicted pattern of frequencies in front of us, we can watch what the actual frequencies are, and calculate the difference. Then we can use the difference between the predicted and the actual frequencies to decide how far off target we are. It was Tindall reflected, "astounding " — simple and obvious after you heard it, as elegant solutions seem always to be.

No matter what the source of navigational errors —mascons, venting of the spacecraft, changes in trajectory from firing of the R.C.S. thrusters, or an imprecise burn—Schiesser had given them a way to determine precisely how much they needed to change the planned course of a descending LEM." ²³

This method presupposes that the radio used in tracking has absolute frequency control down to the millionth of a cycle. Even if they had this astonishingly accurate instrument, NASA still had no more than range without bearing. Still Schiesser was regarded as a genius for thinking this up. I was surprised at first that NASA didn't promote him for a Nobel Prize, but then I learned that NASA was using this rather obvious method before 1963. ²⁴

To further disparage this crowning jewel, self-placed in NASA's navigational crown by NASA's other experts in the summer of '69, consider one more tidbit. The SATNAV system, which depended upon doppler changes, had been fully deployed in 1964. ²⁵

With the later missions, Richard Lewis quotes Houston watching the LEM land during the Apollo 12 landing. "CAPCOM: Intrepid, Houston. You're looking good at 8. [Eight miles uprange from the landing site.]" ²⁶ In fact, they looked so good that the LEM was intentionally aimed at the Surveyor 3 lunar probe. Indeed, it parked within 100 meters of the crater rim that held the old Surveyor. Here's their version of that tale:

"At midnight Houston time, November 18, four days after Yankee Clipper's encounter with lightning, Emil Schiesser stood behind two Martin contractor personnel at their consoles in a corner of the first floor of the Control Center, near the computers. As the LEM Intrepid appeared at the edge of the moon, the screens began to fill with the tracking data they had been waiting for. The three of them began filling out their cheat sheets, more formally known as Procedure Sheets—they looked something like tax forms—copying the numbers from the screen. Then as Conrad and Bean streaked across the face of the moon under powered descent, the three of them began figuring

out the value for Noun 69 —by hand. The Control Center's computers didn't know how to do something as simple as multiply two numbers, Schiesser said, and they hadn't bothered to bring in a mechanical calculator. They scratched out their calculations, passed the number to the Trench, who gave it to Flight, who told CAPCOM to transmit it to the crew." ²⁷

Man! What accuracy! Big computers that don't multiply? Trajectory ballistics by hand? In seconds? Golly! Hooray for Hollywood! How can anyone disbelieve this?

Below Harry Hurt has transcribed the conversation between Conrad and Bean as they left the LEM which absolutely verifies that Richard Lewis's statement is true.

"Conrad ventured a few more steps away from the LM, steadied himself in the powdery surface dust, and started scanning the surrounding moonscape. He promptly spied the half-sunken metallic object he was looking for."

"Boy, you'll never believe it! Guess what I see sitting on the side of the crater? The old surveyor!"

"The old Surveyor!" Bean Echoed. "Yes, sir!"

"Does that look neat!" Conrad declared, laughing with glee. "It can't be any further than six hundred feet from here. How about that?" ²⁸

Add to the "If that don't beat all" category in grandpaw Ben's book of hillbilly records the following NASA fact. "A few years later, after the four LEMs following Intrepid had each descended to within a few yards of their targets, ..." ²⁹

Golly! "Within a few yards." Don't that beat all? Sho' nuf!

1. p. 65, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
2. p. 103, Ibid.
3. p. 179, HEROES IN SPACE, "Bond", 1987, Basil Blackwell Inc.
4. p. 69, THE VOYAGES OF APOLLO, "Lewis", 1974, Quadrangle
5. $\text{Tan Angle} = 1 \text{ mile} / 239,000 \text{ mile}$ $\text{Angle} = .000239731 \text{ degrees}$
6. p. 944, AMERICAN PRACTICAL NAVIGATOR, 1977, "Bowditch"
7. $\text{Half width} = (\tan .65/2) * 239,000 = 1355 \text{ miles}$ $\text{Diameter} = 2711 \text{ miles}$
8. p. 98, THE VOYAGES OF APOLLO, "Lewis", 1974, Quadrangle
9. p. 961, AMERICAN PRACTICAL NAVIGATOR, 1977, "Bowditch"
10. $12 \text{ in} / 240,000 \text{ mi} : x \text{ in} / 60 \text{ miles} = 720 / 240,000 = .003 \text{ in}$
11. p. 184, ASTRONAUTICAL ENGINEERING AND SCIENCE, 1963,
"Stuhlinger, Ordway, McCall & Bucher", McGraw-Hill
12. p. 456, MANNED SPACE FLIGHT, "Baker", 1981, Crown
13. $\text{Semi Diameter} = \text{Tan } (2 \text{ degrees}) * 239,000 = 8346 \text{ miles}$
 $\text{Circle of uncertainty} = 2 * 8,346 \text{ Dia} = 16,692 \text{ miles}$
14. $\text{Circle of uncertainty} = \text{Pi} * 8346 * 8346 = 218,829,885 \text{ square miles}$
15. $\text{Area of Moon} = \text{Pi} * 1080 * 1080 = 3,664,353 \text{ square miles}$
16. $\text{Area Moon plus entry ring} = \text{Pi} * 1280 * 1280 = 5,147,185 \text{ square miles}$
17. $\text{Area of target ring} = 5,147,185 - 3,664,353 = 1,482,832 \text{ square miles}$
18. $\text{Probability} = 1,482,185 / 218,829,885 = .0067 \text{ or } .67 \%$
19. $\text{Odds } 218,829,885 / 1,482,185 = 147 \text{ to } 1 \text{ against}$
20. p. 162, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
21. p. 407, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
22. p. 432, Ibid.
23. p. 383, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster
24. p. 182, ASTRONAUTICAL ENGINEERING AND SCIENCE, 1963,
"Stuhlinger, Ordway, McCall & Bucher", McGraw-Hill
25. p. 1029, AMERICAN PRACTICAL NAVIGATOR, 1977, "Bowditch"
26. p. 106, THE VOYAGES OF APOLLO, "Lewis", 1974, Quadrangle
27. p. 385, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster
28. p. 193, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
29. p. 386, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster

THE NUMBERS GAME

NASA has one of the best public relations (PR) departments of any agency in the country. Our taxes pay for the propaganda produced by this bureaucracy to keep us convinced at all times that NASA is 100 percent for the flag, God, science, motherhood, and the American way. The only thing they seemed to have missed in the button pushing was apple pie! And they probably claimed somewhere that space research helps make better apples. No matter what transpired over the last 35 years, in the end, NASA came out smelling like a lilac bush in bloom.

Never mind the normal disasters of incredible cost overruns. Forget the snail-like progress. Down through the years there were only two problems that really set NASA back on their heels. The first and worst was the barbecue that someone threw for Grissom, Chaffee and White. The second occurred almost 20 years later on January 28, 1986 when a few million pounds of liquid hydrogen and oxygen exploded, searing the Florida skies and destroying the Challenger Shuttle and its full crew.

Since only fools refuse to realize that in blazing new technologies there "be" hidden dragons with diamond-hard flesh-ripping teeth, the second disaster worked its way out of the public's system in short order. The Challenger explosion called for another government committee. This one was the Rogers Commission, and its job was to point the fickle finger of fate at a culpable culprit.

This turned out to be the people who made the sectional gaskets for the solid fuel rocket booster called an SRB. You may remember committee member and Nobel Prize winner Richard Feynman demonstrating on TV how the gasket material cracks when placed in a glass of ice water. The committee claimed that the cold temperatures that morning allowed the "lower" gasket to leak, thus allowing the burning rocket fuel to slice through the gasket and the joint when the burn line reached that level. Then the blazing hot gases lanced across the separation and stabbed into the cryogenic storage tank. Simple case, spectacular and deadly effect. Right? Wrong!

Collins reports that four sections comprise an SRB.¹ He also tells us, "On the other hand, the pieces of the right SRB corroborated the fact that a failure had occurred in the joint between the two lower segments — the aft field joint."²

In Liftoff the Collins book, on page 226, there is a very clear three-dimensional illustration, labeled "SRB joint cross-section" which shows the joint in great detail. Right next to it is a drawing of the shuttle before launch. A bold arrow starts at the joint detail and extends to the SRB's "lower" joint. He states, "The Rogers Commission interviewed more than 160 individuals and amassed 12,000 pages of transcript."³ It is too bad they didn't look at the TV pictures of that launch that clearly showed the spear of flame emanating near the top of the SRB rocket.

As usual with government committees, their conclusion seems neither fits the facts nor the photographs. As another example, the Warren Commission told us that President Kennedy was shot from the rear, but the films taken at the time show his head to be the only object in

history that recoiled from being hit by a bullet by moving into the direction from which the bullet came. Indeed, I saw a government MD on TV declaring that living objects frequently recoil toward the bullet. That Commission apparently also pointedly ignored the fact that a bolt-action Carcano rifle, the alleged weapon of assassination, cannot be fired (period) as fast as the shots recorded on the radio sound track.

Similarly, the Rogers Commission ignored the visual evidence that everyone saw first hand. We saw, within seconds of the explosion, a magnified film clip that showed a stabbing bolt of flame lancing across the separation distance between the solid fuel booster (SSB) and main cryogenic fuel tank. It crossed the gap and vaporized the thick foam that insulates that tank, thus exposing the incredible cold metal walls to an awesomely hot flame.

In that instant, thermal stress destroyed the tanks integrity allowing the liquid fuel to escape. This, in turn, upset the balance in pressure on the tank's common diaphragm that separates the liquid hydrogen from the liquid oxygen. The diaphragm shattered allowing both liquids to mix. Yes, the flame from the booster was present, but it wasn't necessary to trigger the explosion that followed. Static electricity from the released gasses would have provided ignition in any event. That bolt of flame originated near the top of the SRB not the bottom! They would have had a much more credible supposition if they had told us it was the top joint.

The lancing flame we saw on TV originated too high up to have been a joint. It pierced the booster on a line drawn between the center of the booster and the main tank. This means that the inner ceramic liner of the booster wall was chipped (spalled) at just that point. Had it erupted from anywhere else on the perimeter it could not have hit, and therefore, eaten through the insulation to destroy the main tanks.

Although ceramic lining material is tough stuff it has one drawback: it spalls easily. You can scour and clean the porcelain (ceramic coating) on your stove forever, but don't tap it with a hammer, especially on the metal side. If you do, the porcelain will instantly spall away from the metal leaving a small round section bare of ceramic covering. On a kitchen stove this is only a cosmetic problem, but in a solid fuel rocket it's disastrous. The instant the fire line hits that level the spall will fall free leaving the bare metal wall to disintegrate. Then a spear of fire, driven by the internal pressure, will leap out radially from the wall.

As I reviewed the information at hand on this disaster, I found myself wondering if someone had deliberately destroyed that shuttle. It wouldn't have been very difficult. In fact, it would have taken just one well-placed rifle bullet.

Try this conjecture on for size. Some place in this big world, there is a small group of religious fanatics that are determined to keep man out of space, because "the heavens belong to God". They could arrive in a van with a raised cap and park there, with ten thousand others, for the big lift-off. Let's assume a sharpshooter smacks a single round off the booster's edge just where a line drawn between the common centers of tank and booster would intercept. He does this after ignition, but before the hold-down latches release. The ceramic liner of the booster wall spalls. However, the spall is held in place by the solid fuel.

The sound and fury of the Challenger's engines would mask a silenced rifle shot. Even a person right next to that vehicle wouldn't have heard it. That's quite a supposition, isn't

it? And yet, immediately after that explosion, why were the launch facilities re-fenced to keep spectators even farther away?

The first disaster should have, and almost did, destroy NASA. However, their PR people and allied cohorts in high places were allowed to use self-inspection, stonewalling and obfuscation of the Apollo flight numbers as their way out of the barrel. It was a obvious obfuscation at that, but it worked. In fact, it worked so well that we are still a bit confused about it some twenty years after the fact.

The obfuscation of the public in general, and the press in particular, centered around NASA's renumbering of the Apollo missions. Before the fire Grissom's mission was called Apollo 1. It was touted as the first of the Apollo series.⁴ When Collins writes about Grissom's flight he says, "Gus Grissom was talking about getting Apollo 1 airborne before the end of the year, ..." ⁵

The fact is that every author who writes about the Moon landings also seems a bit confused about the numbering. Even Collins, the astronaut, seems confused as he reports in a huge footnote:

"It would take bookkeeping more precise than mine to explain the various systems of nomenclature in their entirety, but the highlights are: the Grissom-Chaffee-White flight would have been called Apollo 1. It was called 204, because it was to be carried aloft by the fourth booster of the second Saturn series, the Saturn 1B. After the fire, the numbers were changed, and the Schirra flight became known as Apollo 7 because it had been preceded by six unmanned test flights. It was also still 204, since it used Grissom's booster. The Borman-Collins-Anders flight was called 503 because it was the third flight of the Saturn V, following the unmanned test flights 501 and 502. Sandwiched between Schirra and Borman was the McDivitt flight, which had so many different numbers at one time or another that I won't even attempt to list them." ⁶

Then later he writes of the 012 capsule (the one that burned) as if it were now a part of the Gemini Program, "Grissom's 012 was not about to fly with the Gemini 12 shot scheduled in November, but was daily slipping farther into 1967." ⁷ Gemini 12 lifted on November 11, 1966 and it was the last, and official end of the Gemini Program.

Frank Borman has written this, "During 1966, NASA had conducted three unmanned flights to test the gigantic Saturn launch rocket." ⁸ Which flights were they? Had NASA answered such questions these doubts would have been resolved.

After the fire, without any sleight of hand, the press might have questioned why NASA was planning to send up a manned flight in an already obsolete capsule atop a Gemini Saturn using the 1B engines. Logically, wouldn't this then be another Gemini flight?

But NASA's officials used a little number magic and renamed Apollo 1 as Apollo 4. This explains the reason why one reference book refers to it as Apollo 1 and others as Apollo 4. A question that springs to mind is if that really was number Apollo 4 exactly which flights were Apollo 1, 2 and 3?

Mr. Gray also seems confused about the numbering system, but then to straighten it out he claims, "For reasons that would make sense only to a librarian, this flight was designated Apollo 7. (Apollo 1 had been set aside at the request of the widows for the flight that never took place, Apollo 2 and 3 never existed, and Apollo 4, 5, and 6 were unmanned flight tests.)" ⁹

However, earlier in his book he tells us that in the spring and fall of 1966 two unmanned Apollo flights were indeed made. ¹⁰ On the other hand, didn't Frank Borman tell us there were three Apollo flights that year? See what I mean? Everybody seems to have been baffled by bullshit!

Collins reported that the first Saturn V flight was on November 9, 1967 and it was, "A nearly perfect flight, it was not only the maiden voyage of the Saturn V but..." " That test flight took place close to 9 months after the fire. It also seems to show that NASA's zero test policy was a macabre joke. And it proved that Apollo 1 was actually Apollo 1.

As noted before, the 1B was too small to go to the Moon. Only the Saturn V could make that weighty haul, but at the time of the fire the Saturn V was still in development. For all I know it may still be in development. Bill Kaysing is positive the Saturn V never flew. Collins had this to say about the 1B rocket after the fire, "But we still had a hell of a long way to go; we weren't going to get Wally and crew airborne until summer 1968 at the earliest, and they were going on a puny Saturn IB rocket." ¹² Note his accurate — for once — adjective, "puny"!

No matter how you look at it three astronauts died in a fire in an obsolete capsule on top of a rocket far too small to do the job. Why were they in there? The Apollo 7 boosted October 11, 1968 still using the 1B engine. Flight 503 flew on December 21, 1968 and Collins wrote of this flight, "502 had more than its share of problems, and had barely limped into earth orbit. The first stage had developed severe oscillations, two out of five second-stage engines had shut down, and the guidance system had overcompensated and put the vehicle into an orbit whose apogee was a hundred miles too high." ¹³

Introducing even more confusion about the numbering Mr. Hurt writes the following paragraph.

"The first series of unmanned Apollo missions, three far less ambitious earth orbital flights, were nearly catastrophic embarrassments. Apollo 4 suffered a fuel spill and a major computer malfunction. Apollo 5, the inaugural test flight of the lunar module, experienced two equally serious problems. When the hastily refurbished spacecraft finally got off the ground, the LEM's engine, which was supposed to fire for thirty-eight seconds at full power, only managed to burn for four seconds at ten percent thrust. Apollo six failed even more miserably. Due to a sequence of booster engine malfunctions, the spacecraft was catapulted into the wrong orbit before it got a chance to show its stuff." ¹⁴

On Apollo 6 in "Journey To Tranquility" we find, "A film taken from a high-flying aircraft equipped with a radar-directed camera actually showed a piece of the rocket breaking away." ¹⁵

And there is yet another piece of confusion, whereby the authors of the above book tell us that Collins 502 flight was in reality Apollo 6. "Yet in April, when Saturn V made its second flight, designated Apollo 6, it looked for a time as though they might have another chance." ¹⁶

Harry Hurt writes this of the Apollo 7 which only orbited the Earth.

"But unbeknownst to the general public, the Apollo 7 astronauts were flirting with disaster from the moment they left the launch pad. While the mass media celebrated the fact that America had at least gotten back in the space race, NASA quietly compiled a list of no less than fifty malfunctions that had occurred during the mission. The most ominous included repeated errors by the spacecraft's guidance and control systems, inexplicable surges in orbital velocity, a nine minute communications blackout, and the loss of three days bio-medical monitoring data." ¹⁷

Isn't it strange? Every test flight of the Apollo Program is about as bad as it can get, yet for the next nine in a row, most problems disappear.

Still confused? So am I. In desperation I sent a letter to NASA asking for a complete listing of every launching for the three space programs. I am still waiting for an answer. Why didn't I get a response listing the launchings, if they weren't playing a numbers game? Surely, they couldn't be confused too.

1. p. 210, LIFTOFF, "Collins", 1988, Grove Press
2. p. 225, Ibid.
3. p. 234, Ibid.
4. p. 277, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
5. p. 255, Ibid.
6. p. 277, Ibid.
7. p. 261, Ibid.
8. p. 169, COUNTDOWN, "Borman & Serling", 1988, Morrow
9. p. 261, ANGLE OF ATTACK, "Gray", 1992, Norton
10. p. 211, Ibid.
11. p. 285, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
12. p. 284, Ibid.
13. p. 307, Ibid.
14. p. 95, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
15. p. 226, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
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EXPLAINING HEAT & COLD

The single greatest misconception we have about space is that it is cold. NASA, that great science machine, has never done a single thing to dispel this great myth. If anything they have promulgated this myth for their own advantage. Even though one definition of cold is the absence of heat, space is an absolute exception to this rule.

As a kid reading thousands of science fiction stories I would find a repeated situation similar to this, "Jay Vordak was in serious trouble. He had been able to extract the Krentak Ray generator from the vault on the Vulsa ship but the vault guard robot had smashed his suit heater in the last seconds of the fight. It was as dead as the robot. The ray would save his people from being enslaved by the Vulsa only if, in the next few minutes, he could reach his ship hidden amongst the huge boulders on this barren rocky asteroid. He could feel the bone numbing cold of space rapidly sucking the heat from his body."

Until I began to write this book I never realized that space is neither cold nor hot. Only matter can have these attributes and space is the absence of matter. Science claims that heat is a measurement of molecular activity. Since there are very few atoms or molecules to be agitated in space, space can neither be hot nor cold. As a near perfect vacuum, it is, at the same time, the greatest insulator and the best heat sink in the universe. It exists, unaffected, next to the incredibly hot surfaces of stars. It remains just as completely unaffected near the absolute zero temperatures found on comets traveling through interstellar space.

Before we can understand what happens on a space ship, or to a space suit, we need to understand a bit about heat. This section is a little refresher course for those who once knew a lot about heat, and a beginner's course for those who only know that ice is cold and a fire is hot.

Temperature — The measurement of the molecular activity in a mass; the sensible heat energy in a substance.

Heat is measured in degrees by various temperature scales. Despite an act-of-Congress many years ago that demanded we adopt the metric system and use the Celsius (C) temperature scale, most Americans still subconsciously think in terms of Fahrenheit (F) temperatures, and also in the English system of weights and measures. We cling to it, not because it is superior, but because we were brought up using it and we can instantly visualize its various units.

We know an ounce of weight; a mile of distance and a degree of Fahrenheit temperature. We Americans do not yet think in terms of grams, kilometers nor degrees Celsius. The Fahrenheit scale places the freezing point of water at 32° F and the boiling point at 212° F. This scale is awkward and admittedly hard to calculate with, but we've used it from our earliest schooling, and in this case familiarity breeds ease of use.

The Celsius scale calls the freezing point of water zero and the boiling point 100°C. It is simple for those brought up using it, but confusing to those of us who weren't.

There is also the Kelvin scale (K) which uses the Celsius degree and calls minus 273° C absolute zero. For the purposes of easy reading and comprehension I shall use degrees Fahrenheit for our discussion. However, for heat calculations concerning radiant energy it is necessary to use the Kelvin scale. Here is a table showing a short range of every day Fahrenheit temperatures and their Celsius and Kelvin equivalents.

Fahrenheit to Celsius to Kelvin

F	59.0	64.4	69.8	75.2	80.6	84.2	89.6	95.0	100.4
C	15	18	21	24	27	30	33	35	38
K	288	291	294	297	300	303	306	308	311

Heat Conduction — The process by which molecules transfer heat energy to another molecule.

All materials conduct heat. But metals are much better heat conductors than non-metals. Liquids are much better conductors than gasses. Flowing substances conduct heat much better than their stationary counterparts. Most organic substances are poor conductors of heat, and a vacuum is the worst heat conductor of all.

Insulation — Any material that is a poor conductor of heat.

The best insulating materials only slow the conduction of heat. A man in a modern fire fighter's suit can walk bravely into the flames surrounding a burning oil well and survive. However, he will survive only as long as hoses keep spraying him with cooling water to remove the heat. Should the water pump fail he has only seconds before he is parboiled and minutes before he is cremated, despite the suit.

A vacuum is the best insulator because it is composed of nothing. Being nothing it has few molecules or atoms to agitate, and therefore, cannot transfer heat by conduction or convection. The best known application of this fact is the Dewar flask used in cryogenic work or its household relative, the common glass thermos bottle.

The principle of a thermos is simple. The inner section is composed of a narrow necked ultra thin glass-walled bottle fixed within a slightly larger ultra thin glass-walled bottle. The bottles are hermetically sealed together after the air between their adjacent walls is evacuated by vacuum pump.

To reduce the heat loss even further the outer and inner surfaces are mirrored. This stops some of the radiant heat loss because it is reflected back and forth by the mirrors. A cork is used as a stopper in the opening, because, in addition to the ease with which it compresses to make a tight seal, cork is also a very good insulator. In fact, cork was one of the best heat insulating materials before space-age materials became available. This entire assembly was usually placed in a steel case and covered with a removable cup that threaded onto the main case. A good thermos can hold either boiling hot beverages or ice cold drinks, and can almost maintain the starting temperature for hours depending on the ambient temperature of the environment.

Radiant Heat — Heat energy transferred by an electromagnetic wave.

The only way heat energy can be transferred through a vacuum is by radiation. The Stefan-Boltzmann law is used to calculate the quantity of heat being radiated, or received, by a substance. ¹

The radiant heat transmitted from a unit area of surface is proportional to, and thereby mostly dependent on the fourth power of the absolute (Kelvin) temperature of that surface. The words "fourth power" sound complicated, but they simply mean multiplying a number by itself four times. For example the fourth power of 2 is $2 \times 2 \times 2 \times 2$ which equals 16. The fourth power of 3 is 81. The number 3 is only 1.5 times greater than 2.² However, if we divide the fourth power of 3 by the fourth power of 2 we find it is 5 times as great.³ Therefore, a body radiating heat at 3 degrees K radiates five times as much heat as a body at 2 degrees K. This ratio drops quickly as the numbers increase.

The heat emitted is also dependent upon the coefficient of emissivity. This is a number which ranges from zero to one. A perfect emitter would be 1 and the perfect mirror would be 0 because it would reflect all the heat that hit it. It doesn't matter if the surface is emitting or absorbing radiant heat the coefficient is the same.

A constant, called Stefan's constant, is also necessary to produce numerically correct answers. The Stefan-Boltzmann formula produces numerical answers in watts. It can be converted to calories, a heat unit we're more familiar with, by multiplying the watts by 860.

The Sun's surface temperature is estimated at 6000°K .⁴ The radiant energy at this extremely high temperature is truly awesome. By using Stefan-Boltzmann's law we find that 73,487,090 watts per-square-meter is transmitted into space. After it has traveled 93 million miles to the Earth, this figure has been reduced to an average of 1353 watts per square meter above the atmosphere.⁵

Boiling — The vaporizing of a liquid by the addition of heat.

When we boil any liquid we produce a vapor of that liquid. In addition to the sensible heat (detected by a thermometer), each gram of vapor carries with it a much greater amount of non-sensible heat which is called the Heat-of-Vaporization. If the vapor is physically removed from the area the remaining liquid becomes cooler. The temperature at which a liquid boils is also varied to a great degree by the pressure. On top of a mountain where the atmospheric pressure is less, water boils at much lower temperatures. The freezing point of a liquid is also affected by pressure in a similar manner, but to a much lesser degree.

A tumbler of water will start to boil away without added heat as you increase the vacuum. In fact, if you had a thermometer in the tumbler, you would see the temperature of the remaining liquid drop as the vapor was pumped out. At a low enough pressure or a high enough vacuum you would also see some of the water turning into ice at the same time the rest was boiling. In effect, the remaining water is being refrigerated by the heat energy it is losing. Once boiling commences the pressure will drop much more slowly than in the beginning. The lower the pressure the harder the pump must work. Since each volume of water vapor is 1200-times greater than the water so vaporized, the pump must evacuate that much more volume.

If you didn't realize that you were removing heat by extracting the vapor you might conclude that a vacuum is inherently cold. Indeed, science fiction books, sci-fi movies, and television space operas have led us to exactly that conclusion. But this is not true. If space was as cold as we have been led to believe then any surface area of a space ship away from the heated sections could become dangerously weak and susceptible to failure. Too much cold, like too much heat, can seriously affect the structural integrity of most materials. During both the Arctic and the Antarctic winter, temperatures can drop below minus 60° F. Rubber loses much of its flexibility and metals become brittle. But this temperature, -51° C or 222° K, is relatively hot compared to absolute zero at -273° C.

Refrigeration — A process which cools a substance by the physical removal of heat.

Mechanical refrigeration uses a lot of power, heavy motors, pumps and a refrigerant to pump heat out of a well insulated container. The refrigerant must be able to store the heat it absorbs from the container and must also be capable of releasing that heat in the heat exchanger. Some type of pump is needed to move the hot refrigerant from the container to the heat exchanger and then bring the cool refrigerant back again.

The heat exchanger is vital because it transfers the heat to a heat sink which on Earth is either the air of our atmosphere or sometimes the water of a pond, river or ocean. Without a place to dump the heat there would be no refrigeration or air conditioning as we know them. If you ran an air conditioner in a sealed room the temperature in the room would climb even though directly in front of the machine there would be a flow of colder air.

Explosive Freezing — The rapid decompression of a liquid or a gas.

In a CO₂ extinguisher, carbon dioxide, a colorless gas is stored under high pressure in a liquid state. When we pull the trigger the liquid, released from the pressure, rushes out into the air instantly exploding into a fine spray of extremely cold and frozen particles called dry ice. The latent heat is lost because of the tremendous change (drop) in pressure.

Fuel Cells — A generator that combines a fuel and oxygen, and primarily produces DC electricity and water instead of heat.

These units are similar to batteries. However, unlike a battery — which uses a chemical change to store electrical energy — a fuel cell uses a chemical process to generate relatively small amounts of electricity. Also, unlike batteries the fuel (chemicals) are not stored internally, but are fed in as the electricity is needed.

Spontaneous Combustion — A process where oxidation creates more heat than is being emitted.

The temperature will rise in a closed system (house, car, or LEM) when more heat is absorbed than given off. As you will see, a space ship or space suit is no different. In summation, if a vacuum was inherently cold we could air-condition and refrigerate simply by putting a vacuum chamber around the unit's radiator and then pulling a vacuum on it.

1. Stefan-Boltzmann's Formulae

$$I \text{ (watts)} = e \times a \times A \times K^4$$

c = emissivity coefficient = .5

a = Stefan's constant = 5.6703×10^{-8}

A = area in square meters

K = temperature in Kelvin

2. $3/2 = 1.5$

3. $81/16 = 5.0625$

4. p. 316, COLLEGE PHYSICS, "Tipler", 1987, Worth Publishers, Inc.

5. p. 316, Ibid.

THE LEM'S PROBLEMS

Thermal Problems —

At the start of the Apollo Program, Joe Shea, NASA's Chief Administrator, decided the Apollo capsules should rotate about their longitudinal axis to keep the heat shield warm enough not to crack on re-entry. They called this passive thermal control or PTC. Since the heat shield was covered by the service module until minutes before re-entry, what are they talking about?

Of itself, the rotation could neither heat the ship nor cool it. Maybe you've had the same experience, when you roast a whole chicken on a grill. It doesn't matter whether the skewered chicken is rotated 5 times an hour, or 50 times an hour. The chicken cooks in exactly the same length of time. The only thing that turning on a spit accomplishes is to cook the meat evenly.

On a space ship, axial rotation would distribute solar heat evenly, allowing the sun-side and shade-side hull temperatures to be fairly equal, as long as the ship wasn't pointed directly at, or away, from the Sun. But it would also greatly complicate the navigation. Not that the roll itself would be hard to compensate for, but at the time the IMU (Inertial Measuring Unit) and its associated computer would have had to cope with more than one set of problems at a time. This was when computer memory was small and computer operating speeds were much slower.

Indeed, Borman speaks of this twisting mode and says, "We were using passive thermal control (PTC), which involved turning Apollo 8 on its long axis facing the sun and then doing a slow roll." ¹

Here is a man who earned a Masters in Engineering from California Institute of Technology and went on to teach thermodynamics at West Point. Yet, he seems ignorant of the fact that once the long axis (nose or tail) is pointed at the Sun the heat absorption is at a minimum, so that the entire sun-side of the surface will be evenly heated. Why would anyone bother to rotate the ship once it pointed at the Sun?

It took the Apollo ships about 90-hours to travel to the Moon and almost as long to return to Earth. During these periods of time NASA claimed both capsule and service module were air-conditioned using power from the service modules fuel cells and other equipment mounted there. To evaluate this system would require that NASA supply technical information about those systems, which unfortunately they will not give.

Nonetheless, we don't have such a problem with the awkward, unbalanced, Lunar Landing Module (LEM). This pile of tin was so fragile it couldn't support itself here on Earth, and exploded whenever tested in our atmosphere. It had a perfect record of disaster until it was used on the Moon. Then, eight times in a row, it worked perfectly every time by landing safely on the Moon's sunny surface.

The Moon has a two week day and a two week night. The first mission (Apollo 11), set down when the Sun was only 10° above the horizon ostensibly to avoid the heat of the noonday Sun. Later, Apollo landings took place later in the lunar day. And to add to the heat problem all the landings were within twenty degrees of the lunar equator.

Mr. Noble has this to say about temperatures on the Moon. "Surface temperatures range from about 243 degrees above zero Fahrenheit in the unfiltered sunlight at lunar midday, to about 279 degrees below zero in the depths of the lunar night..."² The figure must be substantially correct. If it wasn't, wouldn't the astronauts have reported it? This is hotter than boiling water. In fact, this is hotter than the pressurized water in most household hot water heaters and boilers.

Yet, over and over again, NASA preaches the "cold of space" doctrine. When Aldrin and Armstrong were sleeping on the Moon during the Apollo 11 mission, Harry Hurt wrote:

"Aldrin tried to curl up on the floor of the LEM, only to discover that he was too "Elated" and also too "cold" to sleep during the astronauts schedule seven-hour rest period before lunar take-off. As he reported afterward, "The thing which really kept us awake was the temperature. It was very chilly in there. After about three hours it became unbearable. We had the liquid cooling system in operation in our suits, of course, and we tried to get comfortable by turning the water circulation down to a minimum. That didn't help much. We turned the temperature control on our oxygen system up to the maximum. That didn't have much effect either. We could have raised the window shades and let the light in to warm us, but that would have destroyed any remaining possibility of sleeping.""³

Did NASA fail to make a system that could be turned off? Despite Aldrin's reported claim, the suit's cooling system cannot work in a pressurized cabin as we will see in the next section. In his book, all Aldrin has to say about that day is, "We didn't sleep much at all. Among other things, we were elated — and also cold."⁴ All of this seems very mysterious since all the Moon landings took place during the lunar day. That's when the surface of the Moon is literally as hot as hell. If it's 273° F at midday wouldn't the surface be at least 200° F when the Sun is at 10°? Remember, on the Moon, the sun has been rising for over 24 Earth-hours to get that high.

Isn't it reasonable to assume that the Sun will heat every object on the Moon's surface to roughly the same temperature? Does the Sun not heat cars, houses and pavements here on Earth? Have you ever picked up a metal tool left lying in the summer sun? It can raise blisters on your hand if you're not wearing a glove. Is the sunlight on the Moon different than that on Earth? Yes it is! In fact, it's more intense, since it isn't diffused by an atmosphere as on Earth. That's why noonday temperatures are hotter than here. With the Sun beating down on the LEM how could it have been cold inside?

And as far as not being able to sleep in the sunlight, only vampires have that problem. Normal people often fall asleep on sand beaches and lawn chairs. Isn't that why God made eyelids, or why man created sunlasses and eye-masks?

When speaking about wearing a space suit Collins had this to say, "the astronaut would dissolve in a pool of sweat were there not some way to keep him cooled..."⁵ Undoubt-

edly he was speaking about a conditioned internal environment. Doesn't that mean the suits acted as insulation? Of course they did.

Obviously this entire story was scripted by the NASA "space opry" writers trying to obfuscate the fact that NASA claims that the LEM's cooling system could only cool the electronics. That system, if it ever existed, operated on batteries. Yet, there was no way to power the additional drain of an air conditioning system, had it been present. Murray & Cox writes this: "Because the LEM used batteries instead of fuel cells, oxygen didn't figure in the calculations about power supplies." ⁶ Thinking about it, electronic equipment turns almost all the input power into heat. I don't believe the LEM system as described could ever cool that.

During the Apollo 13 mission NASA tells us about an explosion in an oxygen tank which bled out the other tanks and thereby depriving the fuel cells of the needed oxidizer. This left the astronauts totally dependent upon the LEM's batteries. As Murray and Cox report, "Bit by bit, the Lent was powered down to 15 amps per hour, and the astronauts, wearing thin clothing designed for a long trip in a confined space at 70 degrees, began to get cold as the temperature dropped below 60 degrees and kept going down." ⁷

A prelude to this exciting story occurred on the Gemini 5 mission launched August 21, 1965. With astronauts Pete Conrad and Gordon Cooper on board, the fuel cells had an oxygen pressure reduction that went from 800 down to 120-psi. They powered down which meant they turned off the capsule's air conditioner. It fell to 55-psi on the next orbit and then, "The miracle happened: the pressure began to stabilize, though at a very low level."

⁸

It was later determined that the fuel cell heaters had failed and then the Sun's radiant heat had begun to warm the cells. Wasn't the Sun shining for the first 3 orbits? On that same page we find Cooper and Conrad complaining to ground control, that it was still too cold in the capsule. "We've been sitting here shivering for the last few hours."

During Gemini 7, Frank Borman, complained that the suit was too warm and that, "The cabin remained warmer than we wanted..." ⁹ This was after they had turned down the cabin heat to as low a setting as possible. First question, why didn't Borman, the man who taught thermodynamics, insist on a simple on/off switch to the heat? Have you ever seen a vehicle where it was impossible to turn off the heat? The heat certainly had to be electrical. Why wasn't there a simple switch?

Second question, why didn't NASA use common thermostats such as we use in houses and cars? Third question, how could this capsule get so warm when it spent half its time in the Earth's shadow while the Apollo 13 got so cold spending all its time in the direct sunlight?

Let's review what NASA claims:

1. On the pad, the entire ship is air-conditioned by conventional air-conditioning powered from the ground at Kennedy.

2. The entire ship is air-conditioned in space, powered by fuel cells, until you lose power to run the air-conditioning system because the Sun is heating the whole ship.
3. Because you turned off the air-conditioner the ship gets colder.
4. The LEM had no air conditioning so it got even colder.

The lesson to be learned here is that the next time your air-conditioner is losing the battle with a summer heat wave you can make the house cooler by turning it off. All you have to watch out for then, according to NASA, is getting too cold if the heat wave persists. Conversely, if you feel cold next winter turn off the heat and open the windows. Makes sense in a NASA sort of way.

In the same way that the morning sun quickly warms the Earth's surface, the Sun on the Moon would heat anything parked there. We can calculate the temperature of the LEM after a few hours by adding up all the heat entering, and subtracting all the heat being emitted. The incoming heat was dependent on the heat radiated by the Sun, which is added to by the astronauts' body heat, and by the heat loss into the cabin from all the electronic gear.

Since NASA has never answered any of my letters asking clarifying questions about the equipment used on the Apollo missions, I must make a few assumptions before using the Stephan-Boltzmann law of radiant heat to establish the temperature of a LEM parked in the Sun on the Moon's surface.

The first data requires that we calculate the heat from all sources. I have chosen an emissivity factor of .5 simply because that lies halfway between a perfect mirror and a perfect black body. The Sun impinges on the walls of the LEM with 1353-watts of solar radiation per square meter on the module's Sun side surface.¹⁰ Therefore the available heat absorbed is 676-watts per-square-meter.¹¹

We need to know the silhouetted area so I've assumed a diameter of 16 feet. This comes to 201 feet square or 18 square meters. Therefore, the total solar heat amounts to 12,168 watts per hour.¹²

The life processes of a normal human maintains a body temperature by generating 111 watts.¹³ Two astronauts on board adds 222 watts to the total. This is a grand total of 12,390 watts of input heat.¹⁴ If the LEM is not to become a sweltering death trap it must shed most of that heat which, in the absence of air conditioning, can only be done by radiant heat transmission. The emissivity factor is the same coefficient as used for absorption.

The easiest way to determine the answer is to find the temperature at which the LEM would radiate 12,390 watts from its shadow half. We must transpose the Stefan-Boltzmann formula to find that temperature.¹⁵ Before the LEM can radiate heat equal to the heat it is gaining, its temperature would climb to 120° C or 248° F.¹⁶ Since this calculation is very close to the astronomers' assessment of the Moon's surface I consider it to be basically correct. Did I miss something? How can a vehicle that starts out warm enough to survive in, become too cold to sleep in while parked in the blazing Sun?

The LEM stayed on the Moon for over 24 hours and during this time NASA tells us that our intrepid astronauts used it to sleep, rest, eat, and to eliminate waste in, when they weren't outside on the Moon's surface. By the time the program called for them to leave, the LEM had to be hotter than the ground. Yet our audacious astronauts calmly climbed the ladder and crawled inside to begin the trip back home. It must have taken a special kind of courage to crawl back into that oven. They really did have "The Right Stuff!"

If space is cold, why did they put radiators on the service module to not only cool that module but also to cool the command capsule? Surely there can't be different climatic zones out in space, one for close Earth orbit space and another for lunar space. If it was so cold why weren't unit heaters provided. After all, one of the first specs for the Apollo series of ships was that, "It would provide a shirt-sleeve environment." ¹⁷

Aldrin space-walked on the Gemini 12. "While he was working outside on a daylight pass above the world, he could feel the strong heat of sunlight against the rear inner wall of the inflated suit, he almost burned his skin before he leaned forward again. An external zipper was located in that area and its metal parts had become intensely hot from absorbing solar radiation." ¹⁸

Each complete Earth orbit constituted a "day" which is defined here as the time between the rising of two consecutive Suns. However, since the capsule orbited in about eighty minutes, this was a "day" which gave only about 40 minutes of daylight. In that 40 minutes his metallic zipper became hot enough to burn his back. But the metallic LEM of Apollo 11 fame, which stood on the Moon for almost 12 hours did not! In succeeding missions the LEMs were exposed for days. Yet, they did not heat up. Are the Sun's rays weaker on the Moon? Is space colder on the Moon?

NASA never quits trying to make us believe that space is cold. But they're wrong, because space is nothing! It is the Sun's radiation which causes heat. The LEM should have roasted our celluloid heroes soon after they landed, and long before they could blast off to make rendezvous with the command ship.

Murray & Cox wrote that Houston control was worried about the cold messing up the IMU and thereby losing its one hundredth of a degree angular accuracy. "His back room was posing the hair-raising possibility that if they turned off the command module's guidance system and let it sit in the cold—" ¹⁹ Go figure!

If the cold of space can cool a ship, why did authors Murray & Cox write as follows after interviewing NASA experts? "In contrast, water was a huge problem. The electronics in the spacecraft generated heat which was carried off by glycol circulating through the system. The warmed glycol was chilled by running it through tubes encased in ice. The ice was made by the cold of space from water supplied by the LEM. As the glycol ran through the pipes, the ice vaporized and boiled away." ²⁰

Here these writers were told that NASA was worried about not being able to run the cooling system. But then we are told that Houston was worried about the cold disabling the IMU. That is not logical! The statements are diametrically opposed.

It wasn't the cold of space that made the ejected water turn into ice, it was the fact that space is an infinite heat sink. As we have seen, the heat from the electronic equipment is only a very small portion of the heat that had to be removed. The command ship should also get warmer every minute it spent in the Sun. How much water would the radiators have consumed to keep the ship cool during these two week trips in the Sun?

Collins asked this question in his first book, "What would the temperature be inside the spacecraft during the constant sunlight on the way to the Moon? With the sunny side baking and the shady side freezing, what would equilibrium conditions there be inside, where the softies lived?"^{11 21}

I'd like to address a few words directly to Mike Collins. "Mike, after reading your book three times I think I've earned the right to be informal. Your book was published after the Apollo 11 segment of the grand ol space opy was aired. Since you don't seem to remember how it really was, I would like to be helpful and remind you what it was really like. The advice is free, and I hope you will accept it in the same generous spirit in which it is given. After all, Mike, NASA may decide to re-activate your commission for the trip to Mars. Star Fleet Command did it to the fictional, Captain Kirk, and it could happen to you.

Mike, the inside of that ship will be just as hot as it was during the Apollo missions. And that was damn hot. I advise that next time you go to the Moon that you drink a lot of water, take a lot of those funny little salt pills and shower frequently. That way you will avoid the heat exhaustion you must have suffered the last time out.

Next problem. Let us return to May 1973 when a revamped Saturn V rocket carcass called Skylab was launched. The huge solar collector panels, designed to deploy from both sides of Skylab like diametrically opposed dorsal fins, failed during their planned extension. Eventually the hardy souls on board discovered that the micro-meteorite shield was carried away during launch, and ripped away one huge panel while it pinned down the second. How one shield (never described) could attack both sides of a ship still puzzles me.

Skylab's orbit was 250 miles high. Just before the 3 hour mark after the launch, "the environmental systems officer was swamped with information he never expected to see. Temperatures were all wrong, fluctuating wildly, but for the most part going in just one direction - up!"²²

This man, a contemporary of Aldrin, Collins and Armstrong, must have believed that space was cold; so cold that no plans had been made to use the great Joe Shea's thermal roll. Remember, just a few short years before how Houston Control had made the go-no-go landing decisions for each of the LEM's as they descended to the Moon? Obviously such a decision was not left to the astronauts presumably flying the machine. NASA accomplished this miracle of modern telemetry despite a 2.5 second radio transmission loop caused by the 240,000 miles of distance?

Well, they must have fired all those old geniuses and hocked that equipment because this time, with Skylab at a range of 1,000-miles, nothing worked. Baker writes, "Toward the end of revolution 4 the Honeysuckle tracking antenna picked up attitude changes which took Skylab away from solar-inertial mode, causing the four ATM arrays to drift off their lock on the Sun. By the time Hawaii relayed telemetry from Skylab, the cluster had

corrected itself." ²³

The manned flight planned for the following day was cancelled. There was another NASA cliff-hanger in progress. If they aimed the solar collectors at the Sun, Skylab heated. If they shielded the ship by placing the rear end toward the sun they had little electrical power.

The whole problem could have been resolved in the planning stage if the designers had been told that space isn't cold. This way they could have designed the fin-like collectors to rotate 90°. Then the ship could have been pointed at or away from the Sun to control the heat while still collecting full electric power from the collectors.

By revolution 12 (about 12 hours after launch) the controllers were reading an interior temperature of 38° C (100° F) and a hull temperature of 82° C (179° F). It was also predicted that, "Temperature problems would become acute this day." ²⁴ When launched the normal pressure inside Skylab had been intentionally vented to prevent the shell from bursting, then resealed when the pressure hit 58 mm-Hg (1.1 -psi). They were supposed to begin pressurization with oxygen to 225 mm-Hg (4.3-psi) in preparation for receiving the astronauts. ²⁵ But plans for all this were halted because the pressure induced by the extreme temperatures might have burst the hull.

I find this info a bit hard to believe. What does seem clear is that high temperature in a 70 % oxygen atmosphere could start another oxygen fire such as the one on Pad 34 that cremated Grissom-Chaffee & White.

Later that day the exterior sun-side hull temperature was 146° C (295° F) and directly inside the hull they were 49° C (120° F). On the exterior shade-side the hull temperature was 32° C (90° F) and inside that wall it was 21° C (70° F). ²⁶ Assuming both sides had the same insulation, I cannot understand why there was a through-the-wall temperature differential of 175° F on one side, but only 20° F on the other.

Since Baker shows it's colder inside, than outside on the shade-side I must assume that he made a mistake and reversed these numbers. That is if there was ever any truth to any of these figures.

That's when they allegedly began to figure out how to jury-rig a sunshade that could be deployed by Pete Conrad and his merry men when they arrived on the scene. In the meantime they played attitude games with the machine to limit the heat rise. The following morning, however, hull temperatures rose to higher than 148° C (298° F) despite all the attitude manipulations. ²⁷

What was never really mentioned or clarified by the author is the fact that, unlike the Apollo command ships and the LEMs, that Skylab spent half its time in the shadow of the Earth soaking up zero rays. Isn't space just as cold close to Earth? By late afternoon Wednesday (that same day) the internal temperature peaked at 51° C (120° F) and then began to drop slowly.

Is this another NASA joke? If it's not a joke then it is another NASA fabrication. Collins has this to say, "Without the shield as a sunshade, the temperature inside the

workshop gradually worked its way up to 150 F." ²⁸

In the meantime Houston control feared that the high temperatures had contaminated the existing atmosphere with carbon monoxide and that toluene diisocyanate was released from the materials inside. ²⁹ They feared the lab would have to be purged many times to clear out the toxic fumes. ³⁰

Since the rate gyroscopes (IMU devices) had failed, NASA's geniuses figured out how to tell the precise attitude from the temperature readings. At least that's what they told Baker. He writes, "For the past day or so, information from the rate gyroscopes on Skylab's precise attitude had become less and less reliable since they had not been updated by the Sun sensors locking on the solar disc and gradual drift carried them out of the precise calibration they had at the start of the mission. So controllers, who by now had developed a very precise knowledge of the effect minute attitude changes, had on the internal and external temperature, mapped the changing profile, observing fractional increase or decrease in temperature, to tell the guidance controllers the precise attitude of Skylab." ³¹

This story is on the same level as that of Emil Schiesser and the doppler readings of the radio transmissions of Apollo 11 after which he knew exactly where that ship was. This, to my mind, is just as hard to believe as that tall tale.

On May 27, our space heroes finally boarded Skylab and deployed the parasol. Not, we are assured, without a terrible struggle. But since one tends to grow weary of NASA sagas let's move on. With the umbrella up the internal temperatures dropped to 46 °C (115° F) and the astronauts reportedly went to sleep in Skylab. ³² Have you ever tried to sleep when it was 100° F, let alone 115°? Pete Conrad and his boys really played it cool. They had "The Right Stuff!"

The next morning the temperature was down to a comparatively chilly 42° C (107.6° F) and they began regular operations. It finally dawned on me that the inclination of an orbit determines the percentage of time the ship spends in the Sun, because our poles are inclined 21.5° to the path of our revolution. Therefore a ship with an inclination of 21.5° South would spend 50 % of its time in the Sun. If that inclination was 68.5° North then it would spend all of its time in the Sun. The Skylab, in its 50° North inclination would spend 80 % of its time in the Sun.

It strikes me as strange that Skylab, composed of the same materials as the Apollo 13 capsule, overheated while that Apollo capsule which spent all its time in the Sun, became ice cold. Remember that, according to NASA, the 6 LEMs that stood on the broiling lunar surface for days on end, without air-conditioning, also became cold.

A ship heading toward the "new" Moon is 240,000 miles closer to the Sun. Are we to conclude that the Sun's heat diminishes the closer you get? Or can it be that the Van Allen belts sort of gather up the radiation and also concentrate the Sun's heat?

Loading —

To reduce the weight of the Apollo 11 capsule, NASA was reduced to scraping away Mylar insulation. This play paid off because it enabled the intrepid, Neil Armstrong to jink sideways a hundred yards and safely land on the last of his fuel. ""Thirty seconds," says Houston. That's how much fuel they have left. Better get it on the ground, Neil."" ³³

It seems logical to me, that if the Lem could have carried more fuel, NASA would have enlarged the fuel tanks instead of scraping Mylar? As shown by the following set of charts, the Moon's gravity was as expected, or lower. It couldn't have been stronger because each mission added more scientific equipment for the ALSEP science tests. The series of four charts below labeled figure "a" through "d" respectively, can be found on page 2-2 in a 1973 NASA publication entitled APOLLO 17 Preliminary Science Report.

MISSION DATA ON WEIGHT, TIME OUTSIDE LEM AND DISTANCE TRAVERSED

Mission	Traverse		Time Spent Outside (hr)	Experimental Equipment		Samples	
	Distance (km)	(mi)		(kg)	(lb)	Retrieved (kg)	(lb)
Apollo 11	.2	.1	2:24	102	225	21	46
Apollo 12	2.0	1.2	7:29	166	366	34	75
Apollo 14	3.3	2.0	9:23	209	460	43	95
Apollo 15	27.9	17.3	18:33	550	1212	77	170
Apollo 16	27.0	16.7	20:12	563	1241	94	207
Apollo 17	35.0	21.7	22:05	514	1131	110	243

If we compare the weight carried by Apollo 11 to that of Apollo 16 we find an increase in weight of 1016 pounds. ³⁴ The chart says very clearly that the load from the extra equipment represented only scientific experimental equipment for the ALSEP experiments. But please note, I find no reason to consider the Rover as experimental equipment. The Rover weighed 460 pounds ³⁵ bringing the total increase in weight to 1476 pounds. ³⁶

If an 80 pound back pack life support system (PLSS) lasted each astronaut for four hours, as NASA's claims, then they had to carry either eight more units or re-fills on the Apollo 16 mission. That is an additional load of up to 640 pounds, bringing us to a possible maximum of 2116-pounds additional weight on the descending LEM.³⁷ I cannot begin to guess how much additional "landing" fuel this much extra weight would require even if we suppose that nothing else had to be added to extend the total time spent on the Moon. This added mass is over a ton. All I can say is they must have scraped off an awful lot of Mylar!

Solar Radiation —

This may be the proper place to speak of the extra deadly radiation that is emitted by solar flares. Collins seems to have fluffed off this problem when he wrote, "In similar fashion, the Van Allen Radiation belts around the earth and the possibility of solar flares require understanding and planning to avoid exposing the crew to an excessive dose of radioactivity." ³⁸

If NASA had so much understanding of solar flares why did they send Apollo 8, 10, 11, and 12 out just when, as was known to any astronomer that the sunspot cycle with maxi-

mum flare activity was reaching its peak? Why did they continue the missions over the next two years as that peak slowly declined? If those vaunted 7 million dollar space suits were any protection against that degree of radioactivity, the atomic core that melted down the pile in TMI(Three Mile Island) could have been removed by now, instead of continuing to tick away like an atomic time bomb.

Collectively all our astronauts spent about 90 days in space during the Apollo years. Since the radiation from the completely unpredictable solar flares travels to the Earth or Moon in less than 15 minutes, not much could have been done about avoiding a flare unless you carried lead coffins to hide in. But then if you had the rocket power to add all that weight you surely wouldn't have spaced out in paper thin hulls, a 5 psi pure oxygen atmosphere, nor scraped Mylar from the LEM to reduce its weight.

Later, in this book you'll see NOAA's records of the solar flares for those months the Apollo crews were in space; far beyond the protection of the Van Allen belts. When you do, I feel sure you'll agree they should have received enough solar flare radiation to constitute a fatal dose. Parenthetically, years before the Apollo missions a camera satellite called "Big Bird", orbiting below the Van Allan shield, used gold canisters to protect the film from fogging due to solar radiation. Apparently our astronauts were more than golden.

1. p. 205, COUNTDOWN, "Borman & Serling", 1988, Morrow
2. p. 272, WE REACH THE MOON, "Wilford", 1969, Bantam Books
3. p. 185, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
4. p. 239, RETURN TO EARTH, "Aldrin", 1973, Random House
5. p. 116, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
6. p. 426, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster
7. p. 428, Ibid.
8. p. 96, HEROES IN SPACE, "Bond", 1987, Basil Blackwell Inc.
9. p. 136, COUNTDOWN, "Borman & Serling", 1988, Morrow
10. p. 316, COLLEGE PHYSICS, "Tipler", 1987, Worth Publishers, Inc.
11. $1353 \text{ watts} \times .5 = 676.5 \text{ watts per meter square}$
12. $676 \text{ watts per square meter} \times 18 \text{ square meters} = 12,168 \text{ watts}$
13. p. 312, COLLEGE PHYSICS, "Tipler", 1987, Worth Publishers, Inc.
14. $12,168 \text{ watts} + 222 = 12,390 \text{ watts}$
15. $K^4 = I / (A \times e \times a)$
16. $K^4 = 12,390 / (18 \times .5 \times 5.673 \text{ E } 10^{-8}) K^4 = 2.38^{10} \quad K = 394\text{K or } 120 \text{ C or } 248 \text{ F}$
17. p. 97, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Simon & Schuster
18. p. 215, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.
19. p. 414, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster
20. p. 426, Ibid.
21. p. 64, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
22. p. 474, MANNED SPACE FLIGHT, "Baker", 1981, Crown
23. p. 475, Ibid.
24. p. 476, Ibid.
25. p. 476, Ibid.
26. p. 476, Ibid.
27. p. 477, Ibid.
28. p. 175, LIFTOFF, "Collins", 1988, Grove Press
29. p. 476, MANNED SPACE FLIGHT, "Baker", 1981, Crown
30. p. 479, Ibid.
31. p. 480, Ibid.
32. p. 487, Ibid.
33. p. 406, Ibid.
34. $1241 - 225 = 1016 \text{ pounds}$
35. p. 95, "VOYAGE THROUGH THE UNIVERSE - OUTBOUND", 1991, Time-Life
36. $1016 + 460 = 1476 \text{ pounds}$
37. $1476 + 640 = 2116$
38. p. 101, CARRYING THE FIRE, "Collins", 1974, Ballentine Books

BLOWHOLES OF SEA & SPACE

Blowholes — A nostril at the highest point in the head of cetaceans. A vent to permit the escape of a gas.

A hungry whale descends into the black depths of one of Earth's oceans to feed. When the oxygen stored in the whale's body begins to run out, the whale surfaces and explosively discharges the used air and expired water vapor from its blowhole. The exhaled gases, at the whale's body temperature, are rich in water vapor. When vented they form a mist upon contact with the colder air over the water. This is called a spout. The 19th century whalers kept lookouts aloft on the whaling grounds to watch for spouts, because the spouting of a large whale is visible for miles. When a spout was spotted the lookout would call out, "Thar she blows!"

The officer of the deck would inquire the direction of said whale with, "Wharaway?"

The answer would be given in relation to the ship's apparent heading such as, "Three points off the starboard bow."

Remember that these were iron men in wooden boats. Few of them were charm school material, with "The Right Stuff, so one must forgive them for bellowing back and forth like the low class louts they were. The blowhole, vital to the whale's survival, was also its Achille's heel. Several decades ago another species of mammal plunged into the black depth of space. These astronauts were iron men in titanium ships who ascended into the sea of space close to our atmospheric shore. Then somehow, they began to change and evolved into celluloid heroes who stroked our egos while feeding their own. They told and ostensibly showed us how they worked wonders as they descended onto the Moon's surface. But, like the whalers, this group of astronauts also had blowholes that were vital to their survival. These also turned out to be their Achille's heel.

Space Proctology — The examination of astronauts' blowholes.

Now let's practice our new found expertise as space proctologists by making a thorough examination of the astronauts' blowholes. According to NASA our mighty mammals daring the darkness of space were just as dependent upon their blowholes for survival as are the cetaceans of the sea. The only difference is that space mammals use their blowholes to keep them cool enough to survive — not for breathing.

Despite the fact that the Apollo landings took place over 20 years ago and were not classified, NASA to this day will not release technical information. Perhaps the CIA worries that this information might help Iraq capture the Moon or give Khadaffi permanent camel-grazing rights up there. Just as NASA reports different oxygen pressures when Grissom was cremated, I found two different values listed for the pressure inside the suits. To give NASA the benefit of my doubts I will discuss only the pressure of 4.5 psi (which is the average between 3.7 psi and the 5.2 psi) that Frank Borman speaks of in his book.

We have all seen the astronauts as they gamboled about on the Moon's surface. After all, it was their hour in the Sun. In 1969, we assumed that the do-all backpack provided for all the necessities of life. Since space was "cold" the pack must also provide sufficient

warmth, while maintaining proper pressure, oxygen, dehumidification, etc.

In 1969 nobody talked about cooling the air, and it was in my head that the suits needed heat not air conditioning. After all, didn't space age electric heated gloves and socks make their way onto the market about that time? Had the problem been one of cold it would have been easily resolved by the application of small electric resistance heaters in the suit. With all the insulation in that suit a tiny heater would have been quite sufficient. However, as I watched their Moon prance I still thought about the cold of space. I finally realized that the temperature of the Moon during the lunar day is hotter than boiling water so I knew the real problem had to be cooling. The Sun drives the temperature of the Moon's surface up to 243° F. and it would do the same to an astronaut. Insulation does not stop the transfer of heat or cold. It just slows it down. No matter the thickness of the oven-mitt on your hand, if you keep it in a 243° F oven for a few moments your hand will begin to feel very hot.

NASA wasn't explicit about the specific location of the astronaut's blowhole but had I been part of the design team I would have followed nature's pattern and put it through the bottom center of the back pack. The back pack is called a PLSS. This follows NASA's strange compulsion to make abbreviations of everything. It stands for "Portable Life Support System." A PLSS ready to use weighs 84 pounds on Earth, 14 pounds on the Moon, stands 26 inches high, 18 inches wide and 10 inches thick. ¹ The pack has a total volume of only 2.7 cubic feet, but NASA claimed it provided total life support for four long hours. The back pack holds an oxygen bottle, a carbon dioxide scrubber, a dehumidifier, a water bladder for the cooling circuit, another bladder water to be ejected, a heat exchanger, a radio that monitors bodily function, a communications radio with power enough to reach Houston, and 4 liters of water. To top that off, it also contains a battery large enough to power everything in that pack.

They claim to have sent the LEM onto the Moon with only enough air-conditioning capacity to cool the electronics, yet they put an air cooler in the suit. Was the suit on a different Moon? NASA claims that the astronauts wore long-johns into which had been sewn thin water filled plastic tubes connected to a water filled bladder-reservoir. "... on Apollo a more efficient cooling scheme employed water-cooled underwear into which tiny plastic pipes were sewn." ² Hot air in the suit, generated by the astronauts metabolic process, is apparently fanned across the water-filled tubing. The water is then pumped into a plastic heat exchanger in the PLSS. When the suit begins to heat up, the astronauts turn up the control which ejects the dump water from their blowhole over the heat exchanger. "The water was forced outside the suit, turned to ice and vaporized." ³

The only advantage of plastic in a space suit is its flexibility. Otherwise, plastic is about the worst choice possible for a heat exchanger because all plastics are basically insulators. However, this system could work if the PLSS carried enough water. It is obvious that the unit apparently functioned perfectly because at the end of each Apollo mission our celluloid heroes returned to Earth none the worse for wear. Just to keep NASA honest, let's calculate the water required to do the job. The silhouette of an astronaut covers about 3/4 square meters. Using an absorption/emissivity coefficient of .2, the solar radiation absorbed would be 203 watts. ⁴

According to the authors of First On The Moon each PLSS, "was built to catch and disperse metabolic heat generated by the astronaut at an average rate of sixteen hundred British Thermal Units an hour --". ⁵ Since a BTU equals .2928 watts we have a total of

368 watts.⁶ This should be added to the Sun's heat value for a total heat input of 571 watts.⁷ However we should calculate the heat radiated by the shady side of the suit. Before proceeding we must determine a temperature for the air in the suit. The higher the temperature, the easier it is for the air cooler to do the job. Let's assume that their suits stayed at 100° F. Looking back to the Temperature Conversion chart we see that this temperature is 311° Kelvin which we need to know in order to use the Stefan-Boltzmann radiation equation.

We must invert the original formula to look like this.

$$I \text{ (watts)} = K^4 \times (A \times e \times a)$$

Thus we find that there are 80 watts being radiated.⁸ This must be subtracted from the 571 total watts, which leaves us with 491 watts.⁹ To round out the numbers we add 9 watts for radios, pump heat, etc. for a total of 500 watts.¹⁰ Since there are 860 calories per watt and, assuming we can work at 100% efficiency we must make enough ice to carry off 430,000 calories per hour. " In 4 hours that adds up to 1,720,000 calories.¹²

To lower the temperature of one gram of water one degree C requires the loss of one calorie of heat. Upon the formation of ice, a gram of water loses 80 calories. Therefore a temperature drop from 100° F (38° C) down to freezing (0° C) entails the transfer of 38 calories, and when that gram freezes it absorbs another 80 calories for a total of 118 calories per gram vented out the blowhole. If we divide that 1,720,000 calories by 118 we get 14,576 gms of water that we must eject.¹³ This is 14.6 liters, which equals .514 cubic feet.¹⁴ That would take up 1/4 of the PLSS's volume.¹⁵ The weight of this is 32 pounds on Earth, which is or 38 % of the total claimed weight.¹⁶

So let's take off the kid-skin gloves and get realistic. Using an efficiency of 40 %, which is still high compared to most mechanisms, and a suit temperature of 80° F, we find that 23.78 liters of throw away water is needed. This is 52.3 pounds on Earth, 62 % of the PLSS's total weight and .839 cubic feet which is 40 % of the unit's volume. Remember that the pack also holds an oxygen bottle, a carbon dioxide scrubber, a dehumidifier, a water bladder for the cooling circuit, dump water bladder for ejection, a heat exchanger, a radio that monitors bodily function, a communications radio with power enough to reach Houston. And it also contains a battery large enough to power everything listed above. Can you fault me for feeling that these packs were designed and fabricated by the Wizard of Oz?

If we divide the 23,788 gms of water by 240-minutes we get 100 grams a minute being spewed out the blow hole. At an efficiency of 40 %, 60 grams a minute of frozen vapor would escape the heat exchanger, making quite a whoosh as it ejected. Did anyone hear the astronauts make any whale jokes about their blow holes? When the other guy's suit vented, did any body ever shout? "Thar she blows!" Or is it that any type of venting simply not done in public?

Much more realistically our space heroes should have pranced about carrying a Robinson Crusoe parasol. Blocking direct solar radiation would have alleviated most of the heat absorption problem, at least while they were walking on the Moon. However, not only would it have affected their macho image by carrying a Mary Poppins umbrella, it would have been a severe impediment as they went gamboling about. Also, it might have pointed a hot finger at the naked LEM sitting in the broiling Sun without any type of shade. That's

the very last thing that NASA needed.

NASA claims that rotation kept the command ship cool. Maybe the astronauts should have pirouetted like ballerinas as they went their merry way. But then would this have seemed less than masculine? In the end the only thing that could have preserved their lives for all those hours in that Sun was air-conditioning, which they didn't have. If they had really had suit air-conditioners that worked, every time the suit was vented into the high vacuum of space the rocket-effect should have been spectacular. A rapidly expanding fog of ice crystals would have reflected the brilliant unfiltered sun light; spraying millions of tiny diamond-like crystals about and producing a brilliant, dazzling and unforgettable display.

We can be sure our astronauts never released water in this manner, since, not one of the thousands of pictures taken on the Moon, or during the space walks, has ever shown such a display. NASA would hardly pass up a spectacular photo opportunity like that! Buzz Aldrin wrote that it was so cold in the LEM's cabin that he turned off his suit conditioner. On the other hand, Collins states, "Their allotted 2 1/2 hours goes swiftly and then they clamber back into the Lunar Module, shut the door, and repressurize the cabin." ¹⁷ This is very strange, since the suit's conditioner, if it exists in the first place, couldn't possibly work in the LEM's pressurized cabin. It can only work in a vacuum. One wonders if these two astronauts went to the same Moon together?

Another logical problem is found in the ballooning of the space suit because of internal pressure. Since the beginning of science fiction a flexible cloth suit has been the standard garment worn in space. Collins speaks of the Apollo suit and claims that the internal suit pressure is only 3.7 psi. ¹⁸ He goes on to explain how this inner tube-type ballooning from pressure is overcome. "Instead of having a simple restraining net, it controlled the shape of its inflated bladder by a complex array of bellows, stiff fabric, inflexible tubes, and sliding cables." ¹⁹

The wall of a standard inner tube is a little over a sixteenth of an inch thick and it has only rubber in it. The rubber is very flexible even with 3.7 pounds of air in it. However, a bicycle tire's side-wall is less than twice as thick, yet it is laced with stiffening fibers. Even without pressure it is quite inflexible. The thicker the covering the more fibers it contains and, despite the shape, the more inflexible it becomes. No matter how much time and money one spends on a fabric suit it will still balloon. If you think a double layer of cloth with internal struts to hold the layers parallel would do the trick, think again! This would create skin stressed material which would become much stiffer.

Consider a deep sea diver's rubberized canvas suit. The suit is awkward and to say the least, uncomfortable, yet a diver can walk around in it and work in it — as long as the diver is careful to keep the internal pressure closely matched with the external water pressure. Should the diver accidentally let in an extra pound of pressure the suit will balloon. The arms and legs will stick straight out with a force that is almost savage. And a diver's suit is completely waterproof. Even the slightest leak would allow air to leave or water to enter. But if his suit was closed with a long zipper would it still be waterproof?

A fabric space suit is sort of the obverse of a fabric diving suit. The first keeps the internal and external pressure matched, and the second keeps the pressure in. A fabric space suit must be designed to keep the vacuum out, but you can bet that oxygen would leak

out through the smallest of pinholes. A pressurized oxygen supply might be able to keep up with a small pinhole or two for a while, but not with the leakage from a long zipper! Despite this Lloyd Mallan writes, "As a matter of fact, Hamilton Standard had already achieved a space suit with 93 percent of nude range (nude mobility) before October 1968, when they demonstrated it before the aerospace scientists and engineers attending the Fifth Annual Meeting of the American Institute of Aeronautics and Astronautics held in Philadelphia, Pennsylvania. Live demonstrations of the suit during the week long meeting attracted wide interest and attention -- plus some disbelief. It was hard for some of the onlookers to believe that so much mobility could be designed into an inflated space suit." ²⁰ Why do I suspect that this suit used a doctored pressure gauge, and was really inflated to much less the 3.7 psi?

Harry Hurt describes the cramped quarters of the LEM and explains that suits had a long crotch-to-shoulder zipper which could only be closed by another astronaut. This zipper starts at the front of the crotch and travels between the legs up the spine to the collar. Collins tells us that, "Interlocking rubber lips on either side of the zipper formed a pressure-tight seal." ²¹ But no matter how many interleaving rubber seals there may be, it seems to me that every motion the astronaut makes allows the gaskets to leak a little, like a thousand tiny pinholes were present.

There are three pictures on page 412 of the book *Manned Space Flight* showing the 'new' Apollo pressure suit, which NASA called the AL7B. Around the neck is a neck-ring where the helmet can be secured. One can also see bellows around the elbows, semi-bellows around the shoulders; metal swivel joints on the thighs and the knees. There are also strange laced shrouds on the mid-forearm and the mid-shin. Are the shrouds pressure resistant closures? A football and a punching bag have laces, but these are only on the covering. The bladders inside have one-way air valves. How long would the air stay in the tires of your car if they were laced and/or zipped closed? How long do tires stay inflated with pinhole leaks?

The next strange thing these pictures show is the cable that Collins talked about. It starts on the back next to the zipper opposite the shoulder, but two inches lower. From there it goes into a piece of tubing that curves around the outer arm; then it proceeds to the middle of the chest above the sternum. It must be there to restrain any ballooning, which would cause the arms to rise at the shoulder. Any ballooning would exhibit itself as a force starting from the finger tips and acting on the whole arm, as a lever, against the attachment two inches below the joint.

This obviously puts a great tension on the fastener next to the zipper, and would tend to squeeze the chest from both front and rear with immense force. It would if it didn't rip the zipper apart. Zippers rip apart rather easily. I wonder what type of marvelous zipper was invented that they are still hiding from us. Why didn't NASA claim such a foolproof, impervious zipper as another spin-off against the taxpayer costs of the space race?

Every time we've seen the space suit it is covered with a white coverall, which makes one wonder. The neck ring indicates that this coverall must also be a pressure suit. It would make no sense to fasten the helmet to a non-pressurized outer garment. Another connection problem lies in the stainless steel rings which terminate the sleeves about midway down the forearms. How did they attach the gloves to this suit? What did they use, another leakproof zipper? Or were they fastened into a track with a twist and a click? Also how do you fasten

the outer gloves which are apparent in every picture? Are the boots integral with this suit, or are there laces? Collins claims that his boots and gloves were pressurized, and that the gloves ... "When inflated they tend to become flat and bloated with fingers extended." ²²

It is possible, of course, to make the boots and gloves as part of the garment. But how do you move your hands with the gloves ballooned at 4.5 psi? Did they have bellows and cables in the gloves too? No matter. I would like to see one of their gloves inflated inside of a vacuum chamber in which the pressure has been reduced to about 10.2 psi. I'd like to see the hand that could repeatedly flex this glove against the ballooning. A boxers speed bag inflates to 4 psi, but I'll bet that there's no man who could bend it in half like flexing the fingers does a glove!

On the other hand, maybe the gloves weren't pressurized! If they weren't then the wrist cuffs would have to be extraordinarily tight to prevent excessive oxygen leakage. Cuffs that tight would obviously impair the circulation to the point of gangrene. At least that's what happens to normal people who leave a tourniquet on too long. When our blood pressure is taken, a blood pressure cuff is used. Squeezing a small bulb provides sufficient air pressure to inflate the cuff. This in turn acts as a tourniquet and stops the flow of blood in the artery of the arm. The pressure needed is only slightly higher than the pressure developed by the heart which is 100 torr or 1.93 psi. ²³ Then by listening to the equilibrium points one determine our arterial and venous blood pressure. The use of this cuff can border on pain, and one breathes a sigh of relief when the pressure is released. By the same token, a young man's penis when erect, is almost unbendable at an elevated blood pressure of 2.32 psi.

Today many ambulance crews carry a low pressure emergency medical device called MAST pants. This acronym stands for Mobile Anti Shock Trousers. They consist of pants which contain a pressure bladder. They are put on accident victims and the bladder is inflated with air by a hand bulb. This provides sufficient pressure to force any remaining blood from the legs into the chest area. These pants are used as a last resort measure, and are only removed at the hospital.

According to my first aid instructor, tourniquets must be released every ten minutes or the affected tissues will die, and gangrene will set in. How did NASA create a form-fitting, full body bladder (including other bladders at the hands and feet) that aren't painful, or doesn't stop the flow of blood? Another thought! If the gloves weren't pressurized how could the human heart pump the blood from the hand at a pressure of 1.93 psi back to the heart against the suction of 4.5 psi? Did NASA modify their hearts? Were these men bionic?

Consider the common phenomenon of a "hickey", the red mark left after the vacuum induced by a kiss. A hickey on the human body results from a pound or two of pressure differential. In a full vacuum the hands and feet would become a festering mass of hickeys. That is, unless the gloves and boots were pressurized.

At the start of this chapter I noted we would only deal with 4.5 psi. All the difficulties mentioned in this chapter would be much greater if the suit pressure was actually 5.2 psi, as Frank Borman claimed (which I now believe to be true). To demonstrate this principle for a book trade show in Atlantic City during October '93, I made a "Space Glove". I welded together a steel vacuum chamber with a flange on one end. To this I attached a neoprene-coated, cotton-lined glove. One side of the chamber was plexiglass so the glove inside could

be viewed. When there was no internal vacuum the fingers inserted into the glove could be easily clenched, and the hand freely rotated and flexed within the limitations usual for all gloves.

I exhausted the chamber to 10.2 psi which put 4.5 psi inside the glove. The vacuum pump used was capable of moving 3 cubic feet a minute and at first it was unable to decrease the pressure to 10.2 psi. The glove was leaking air around the 12 inch periphery of the flange, despite the fact that it was tightly clamped with a worm driven stainless-steel band clamp. That leak drained twice as much air as a man breathes. No, I didn't spend tens of millions for research and development, but I still wonder how much oxygen a crotch-to-shoulder zipper would leak.

Once my demonstration glove balloons around your inserted hand, it requires great effort to move either fingers or hand. It also becomes impossible to flex the wrist backwards, although the lever arm is only a normal 7 inches from fingertips to wrist. With that in mind, imagine the effort needed to bend an elbow against a lever arm of 24 inches, measured from fingertip to elbow! How could you move your shoulder and lower your arms or swing them forward against the 36 inches of lever arm found here? I seriously doubt if Hulk Hogan could move his arms in a fabric space suit. Hey NASA, let's do a TV special to prove me wrong! You provide the suit and I'll provide the air pump, pressure gauge and a consumption meter to measure zipper leakage. For some strange reason the space coveralls had an external pocket on the shoulder of the right sleeve, which according to Mallan's book on spacesuits was for sun glasses. The coverall was only worn outside the ship. At that time you had on the fish bowl helmet. What could you do with sun glasses? ²⁴

In December of '93, NASA claimed to have repaired the faulty mirror on the Hubble telescope. I had, and still have, a problem with this. Bright grammar school kids have been grinding telescope mirrors by hand for 200 years and seldom do they fail to get it right. One can use a simple tin can pierced with many tiny holes for gauging correct curvature during grinding. In May of 1990 a NASA shuttle carried and deployed into space an incredibly expensive toy that had already cost 1.5 billion plus. Months later NASA reluctantly informed us that the Hubble's mirror was not ground properly. That toy was backed by a full-time staff of 300 scientists and engineers and none had ever checked the mirror before launching.

NASA also mentioned that the Hubble had a wide-angle planetary-camera attachment. My question was why? The only planet too close to study without a wide angle lens is the Earth. (Which leads us to the happy thought that there never was a thing wrong with the Hubble and the CIA used it as a "Spy Eye"). This also makes no sense! Eric Chaisson, author of *The Hubble Wars* reports that during "Operation Desert Storm" the military had a fleet of at least six "Keyhole" space telescopes that were operational. Some were as big as the Hubble. ²⁵ They tested all of these but forgot the Hubble. Sure they did!

As 1993 ended our TV screens were flooded by pictures of the shuttle crew working on the Hubble. I have been a mechanic all my life and you simply can't work with small fasteners with heavy gloves on. Yet, there they were in the full vacuum of space replacing the equipment. Not only were the suits not ballooned, but neither were the gloves. I also saw one short film clip of one of the astronauts with his hand limply bent down over the edge of a console. My space glove proves this can't happen. But the pictures exist!

Civilization was created by and continues because of our ability to construct buildings and machinery. Construction of any sort depends on being able to design members that are stiff enough to resist the predicted loads. Those predictions are all based on the fact that whenever we add anything to any structural member, whether paper thin or yards thick; whether flexible as a sheet of rubber or as stiff as concrete column, the addition will increase the resistance to bend (the stiffness).

The "Michelin Man" effect of any fabric space suit precludes any real work being done in open space. I believe, the Hubble was worked on with the space doors shut and the bay pressurized, or the tapes were synthesized underwater in the crystal clear pools, where the astronauts practice for space missions. Or they could have developed an armored, articulated suit that is covered with fabric as a disguise. It is not likely, because the hands can't be armored and then must end in hooks. This may have been no more than a slip of the tongue, but at 5:30 Friday morning, December 10, 1993 I was watching the release of the repaired Hubble on CNN. An announcer, named Bob, was describing it and said the words, "commanded the Shuttle doors to open".

Despite the fact that I have been assured by various NASA space experts that space gloves allow manual dexterity, and suits do not balloon, I shall reserve judgment until NASA publicly demonstrates that I'm wrong about the amount of zipper leakage and ballooning of Apollo suits and gloves. Let them take one of the suits (say the one in the Museum of Space in Washington, DC) and suit up an experienced spacewalking astronaut. Eric Chaisson also let the pressure cat out of NASA's space bags. He claims the suit pressure is 4.1 psi. ²⁶ With this figure in mind, let's have NASA pump in 18.8 psi into the suits for the demo. This is equal to the differential in pressure between 4.1 psi in the suit when it is in space and the zero pressure found there.

If NASA complies, get your cameras ready folks. I predict that at any of the pressures described for the suits the astronaut choose for the demonstration will resemble the "Michelin Man" and wouldn't be able to move very well. I also predict that if the input air is metered as to volume, it will show that the suit leaks more cubic feet of air in 15 minutes than all the oxygen the PLSS could have held.

ADDENDUM

Something one of my readers said gave me the idea to test the body when placed in a 5.2 psi atmosphere. After all, this was the pressure the astronauts were supposed to live at when in space. I removed the space-glove from my vacuum chamber and inserted my right arm. Since the machine automatically takes in air through a small valve purposely left open to prevent continual starting and stopping of the vacuum pump, I figured that all I had to do was turn the switch off and the vacuum would quickly dissipate. I threw the switch and the vacuum began to suck my forearm deeper into the chamber.

This meant that more flesh was being jammed into the opening. As the gauge approached 5 inches of hg (2.43 psi), it felt as if a tourniquet was being applied. I couldn't see any change in the hand but it felt like it was swelling. There was also that feeling of pins and needles that came much quicker than any tourniquet could have caused.

As the needle approached the 10 inches of hg (4.6-psi) I became light-headed and decided to shut the machine down. The motor stopped and the dial began to drop. It probably

took only 3 or 4 seconds until the pressure equalized, but it was a reminder that 3 or 4 seconds can be a lifetime when a giant octopus has grabbed you. A half hour later I was still a bit light-headed.

Let's examine this. A few seconds with my lower arm at less than 5 psi, and I became light-headed, but men with "The Right Stuff" can spend weeks and months with their whole bodies at that pressure. If I had a few bucks and a place to keep it, I would now build a body-sized chamber (about a yard or so of concrete and some 8 by 8 inch mesh) and I would get NASA apologists to volunteer to enter this chamber and I ain't kidding! Then I would be able to see for myself if it is possible to be comfortable at 5 psi.

The following statement was made by Mallon while writing about Gene Cernan's Gemini 9 space-walk. "A leak in one of the gaskets around his wrist would have killed him." ²⁷ From this it follows that the gloves (and boots) are not pressurized. On page 105 we also find the statement that "Three and a half psi are necessary to keep a man alive in space." And that is for a man at rest and not under the stress and strain of maneuvering about. They are called space-walks, aren't they?

Then we find the best quote in the book extracted from the work of Dr. Vail the expert in high altitude work in that period. "At 70,000 feet the bare hands swell badly in 30 minutes." ²⁸ The pressure at this altitude is about .8 psi which is better than the absolute zero of orbital distance and thus agrees with the swelling I immediately felt when I exposed my hands in the vacuum chamber of my glove machine. My body reacted faster because I have lost the resiliency of youth.

1. $26 \times 18 \times 10 / 1728$ cubic inches = 2.07 cubic feet
2. p. 117, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
3. p. 221, WE REACH THE MOON, "Wilford", 1969, Bantam Books
4. 1353 watts/meter square $\times .2 \times .75 = 203$ watts
5. p. 261, FIRST ON THE MOON, "Farmer & Hamblin", 1970, Little, Brown & Co.
6. 1600 BTU $\times .2928$ watts / BTU = 368 watts
7. $203 + 368 = 571$ watts
8. I (watts) = $311^4 \times (.75 \times .2 \vee 5.673 \text{ E}^{-8}) = I$ (watts) = 79.6
9. $571 - 80 = 491$
10. $491 + 9 = 500$ watts
11. 500 watts $\times 860$ calories/watt = $430,000$ calories
12. $430,000 / \text{hr} \times 4 \text{ hrs} = 1,720,000$ calories
13. $1,720,000$ calories / 118 gms/ cal = $14,576$ gms
14. 14.6 liters $\times .0353$ liters/cubic ft = $.514$ cubic feet
15. $.514$ cubic feet / 2.07 cubic feet = 25%
16. 14.576 kg $\times 2.2$ pounds /kg = 32 pounds
17. p. 8, LIFTOFF, "Collins", 1988, Grove Press
18. p. 115, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
19. p. 116, Ibid.
20. p. 239, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.
21. p. 79, LIFTOFF, "Collins", 1988, Grove Press
22. p. 79, Ibid.
23. p. 231, COLLEGE PHYSICS, "Tipler", 1987, Worth Publishers, Inc.
24. p. 228, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.
25. p. 250, THE HUBBLE WARS, "Chaisson", 1993, Harper Collins
26. p. 41, Ibid.
27. p. 153, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.
28. p. 179, Ibid.

NO BUSINESS LIKE SHOWBIZ

Shortly after the rulers of the kingdom of NASA chose the "Seven Space Samurai" they must have known that man could not get to the Moon in their foreseeable future. As the years passed, and limited space probes penetrated near-space, NASA hid the fact that deep space, inhospitable at the best of times, becomes a sea of raging radiation when solar storms walk across the visible Sun's surface. The Sun, especially at the height of a solar sunspot cycle, is hardly ever without a medium flare which keeps us quarantined on our home planet.

Only actors working in a space opera could have survived such deadly items as: solar heat, space suits that leak, vacuum packed hands, and space radiation. Actors are not heroes and few heroes are made by performing in space opera serials. Out of the original seven astronauts, only Glenn, Grissom and Carpenter remain heroic. Of the second batch we should add Ed White and Jim McDivitt. Schirra and Stafford lost credibility after their fiberglass whip antenna failed to burn up during re-entry on Gemini 6-A .

Mike Gray writes about the heat of re-entry, "The planet's enormous gravity would pull you in at meteoric speed, and the heat generated just by running into the air molecules would turn ordinary steel to butter." ¹ I guess that includes that fiberglass antennas. Or was it made of Buck Rogers "Impervium"?

From here on I shall use the derisive term "astro-nots" when speaking of the NASA actors who deceived us about going to the Moon. I am not sure about those involved in the Skylab fiasco, but I feel certain some lying was also done about it. I am also not sure how much of the low-orbit shuttle program is fanciful, yet I suspect much of which we are told about everything NASA does are lies.

I also believe Don Eisele and Walter Cunningham flew their mission on Apollo 7 and McDivitt and Rusty Schweickart flew on Apollo 9. The list below consists of the men who did what was claimed.

THE REAL ASTRONAUTS

Mission	Astronauts	
Mercury 2	Gus Grissom	
Mercury 3	John Glenn	
Mercury 4	Scott Carpenter	
Gemini 4	Jim McDivitt	Ed White
Apollo 7	Don Eisele	Walter Cunningham
Apollo 9	Jim McDivitt	Rusty Schweickart

The men listed above did what they calimed. Now that we know who the real astronauts are, I specifically pronounce the names on the following list to be astro-nots who lied about their mission to one degree or another..

THE ASTRO-NOTS

Serial		Actors	
Gemini 5	Gordon Cooper	Pete Conrad	
Gemini 6A	Walter Schirra	Tom Stafford	
Apollo 8	Frank Borman	Jim Lovell	Bill Anders
Apollo 10	Tom Stafford	John Young	Gene Cernan
Apollo 11	Neil Armstrong	Mike Collins	Buzz Aldrin
Apollo 12	Pete Conrad	Dick Gordon	Al Bean
Apollo 13	Jim Lovell	Jack Swigart	Fred Haise
Apollo 14	Al Shepard	Stu Roosa	Ed Mitchell
Apollo 15	Dave Scott	Al Worden	Jim Irwin
Apollo 16	John Young	Charlie Duke	Ken Mattingly
Apollo 17	Gene Cernan	Ron Evans	Jack Schmitt

On every Apollo mission there was miracle after miracle! All miracles were adroitly handled by the men on this list who supplied the "Right Stuff to NASA. The cost to us American taxpayers was a mere 40 billion dollars. Gordon Cooper made the list because Gemini 5 got colder after the air-conditioner was powered down. Even Al Shepard, whose crown was safe as the first American in space, couldn't resist the siren call of more fame and glory. He just had to play golf on the Moon during the Apollo 14 mission.

We may never be able to prove which of the Gemini shots were real, but I have given the astronauts as much leeway as possible. Since the creation of the CIA, whenever pressure for the truth has been placed on a branch of our so-called democratic government, the powers that be place the records under lock and key for fifty or more years.

During the long years that those records are stored, roof leaks occur, windows blow out, fires start, and book-worms can run amuck digesting or shredding critical information. Electronic viruses get loose. Or history gets rewritten, as documents are altered to suit a more preferred circumstance. I have no reason to expect any different treatment for the space program's archives. Wholesale fraud was committed, and nothing in the future will change, just as nothing happened after the Kennedy assassination, Irangate, the S & L scandals or the BCCI frauds. More recently we have Ruby Ridge, the Waco massacre, the OKC implosion and the WTC implosions. All of which were done with govnmnt help.

As far back as 1969 various authors on space have come to the realization that NASA was really in showbiz. For example: "The final accolade, proof that they would be showbiz legends as well as nerveless technicians, was an exclusive contract for Life magazine for their "personal stories."" ²

By the time Michael Collins entered NASA in April 1962 (as part of the second batch of astronauts) NASA had already instituted a policy wherein each candidate had to attend, in essence, a charm school before acceptance. Collins explains, "At any rate, like would-be radio announcers, we read selected passages aloud, and these were critiqued at great length ..." ³ I may be just a bit cynical, but doesn't it sound more like preparation for a space opera than real exploration or adventure?

From the Mercury Program right through the Apollo hustle, we were led to believe that

such men with the "Right Stuff couldn't and wouldn't ever tell a lie. Some were graduates of the top flight military academies including West Point and most everyone else was an officer and gentleman by Act of Congress. They would rather die than lie. This we were told. This we believed!

However, as one small counter illustration straight from the horse's mouth we have Buzz Aldrin writing about his matrimonial problems. He states how he manfully used his military academy honesty to resolve the situation caused by his extra-marital affairs. He writes, "And what did I do, I lied." ⁴

He was also not above submitting his psychiatric bills to the Air Force, masked as if they were family counseling charges, so that no one would suspect he had many other problems. ⁵ Maybe the rest of us would have done the same dern thing in such situations, but, we are not West Point graduates, nor officers and gentleman.

Or consider this anecdote. Aldrin was given the job of playing host to a gaggle of visiting Russian cosmonauts. He offered them an insider's, no strings attached, visit to the spaceport. Yes, he did too. So there! It's in his book. They declined the offer; yet when they were later asked by the press about visiting Cape Kennedy they lied and said they hadn't been invited.

Yet, when writing of this incident, which may have been a cold war gambit, Aldrin was horror stricken. He proclaimed, "There are many things I might do under similar circumstances for my country, but I'm not about to lie." ⁶ Say what??? Why bring this up? Only for the fact that right from the instant of the Apollo 11 launch there were many people who didn't believe men were on their way to the Moon.

Harry Hurt writes, "Although Project Apollo was one of the most extensively documented undertakings in human history, many of the earth's five billion inhabitants still refuse to believe that twelve astronauts really did set foot on the Moon. Exactly how many people cling to this preposterous heresy is unknown because there has never been a world wide opinion poll on the subject. But just as the Flat Earth society in London continue to dispute evidence that the world is round, untold numbers of serious and not-so-serious disbelievers continue to insist that man's first lunar landings were actually a series of government-sponsored Hollywood hoaxes." ⁷

I wonder why he used the word "heresy". Is NASA's dogma now a part of a religion? If so, I haven't yet heard about it. Does doubting a NASA (read CIA) pronouncement become heresy? Is it punishable by excommunication or by roasting? Mr. Hurt seems hurt by this "preposterous heresy" on a worldwide basis. Outside the fact that NASA showed him the same pictures we have examined here, he did appear to have inside information, not available to the rest of us. Although he had the inside track, he apparently never once questioned NASA about a single word or picture. Because of his lack of critical analysis it became my chore to question the whole production. It's not a pleasant or easy task. It may even prove to be lethal.

It is well known that some actors, even some who have spent decades treading the boards, are susceptible to stage fright. They become unglued just before the show starts. Most professionals, however, have the ability to reach deep inside themselves and take up a fast

hitch on the stomach butterflies, and when the curtain rises, hit the stage running. Many amateurs quit performing because of stage fright. Why is it that, without a single exception, the Apollo program astronauts are extremely adverse to public speaking and appearances? They were much more so than other groups of such prominent men.

Many years ago Buzz Aldrin was being interviewed at a banquet in Lancaster, California. He writes, "The first question Roy Neal asked was, "Now that almost two years have gone by, why not tell us how it really felt to be on the moon?"⁸

Buzz explains in his book, "If any one question was anathema to me, that was it. Roy, I suppose felt he had no choice. Yet it has always been almost impossible for me to answer with any sort of decent response. My throat went dry and I got dizzy."⁹

He then adds that a little while later he bolted from the room, shaking uncontrollably, and then began to cry. He never tells us why. I have heard that he had a similar reaction at Edwards Air Force Base. This is definitely no longer a man with "The Right Stuff."

I am not a psychobabbler, but I've been on this planet long enough to recognize a man who has a terribly troubled conscience. I doubt if infidelity or any other such common problem caused it. To the contrary it strikes me as suffering from trying to live out the Big Lie.

The only possible question left is whether this ghost is known to him, or whether it lies deeply buried in his sub-conscience placed there by hypnosis and drugs. If the ghost was generated by governmental psycho-babblers using brainwashing techniques, he should be more pitied than censored. Maybe time will tell which circumstances apply.

Since the end of the 1940's most show business production companies have become color blind. But NASA, operating in its own insular world, couldn't have cared less. They were lily-white for years, until they finally found one black man who had "The Right Stuff." According to Collins, "The closest this country has come to having a black astronaut was the selection of Major Robert H. Lawrence, Jr., on 6-30-1967, as a member of the Air Force Manned Orbiting Laboratory astronaut group. A PH.D. in chemistry in addition to being a qualified test pilot, Lawrence was killed on 12-8-1967 in the crash of an F-104 at Edwards AFB."¹⁰

Here is yet another astronaut that died in an accident. One wonders: did he ask too many sensible questions, did he smell a hoax, or did he prove resistant to hypnosis? I wonder how many more astronauts died who were completely missed by popular writers of the era. It is extremely hazardous to the health to be associated with NASA.

Knowing that the Moon landings were not possible from the start, I believe that NASA poisoned the space apple right from the first Mercury mission by sucking the astronauts into telling the little lie about the dim and fuzzy stars. Otherwise why would Alan Shepard have lied about the stars? Why did Grissom follow suit? And almost every other astronaut lied right to this day?

I expect that NASA didn't come right out with it, up front, and tell them the whole space race was a sham. It is the first rule of spooks to enlighten only those who need to know, and

to tell them only enough to be able to perform their mission. I am confident that the astronauts were told that the dim and fuzzy star thing involved American security, and that such disinformation would help us to beat the Russians to the Moon.

It was a tiny little white lie, which was needless too, since the Russians had already been in orbit. Once the lie was publicly uttered it trapped the astro-nots ever more deeply until they were enmeshed in a web of deceit, treachery, murder and lies. It's the same web of lies that covert intelligence operators have spun ever since the first despot became insecure enough on his throne to feel the need for covert assassins.

The small successes of the Mercury program, weighed against the huge successes of the Russian bear, were pathetic. NASA's funding just kept climbing until it was stratospheric and eventually produced the Gemini Program. This, in turn, led inexorably to the Apollo grand ol'-space-opry when any real Moon landings were forgotten and show business became the primary business for NASA. It continues to this day.

Then each day after that, carefully screened and select personnel — including those astro-nots who actually flew — were gently led down the primrose path that culminated with those alleged, all the way to the moon shots, and the six alleged landings.

As I have previously reported, the first three Apollo missions were figments of NASA's imagination. Of those that launched, I believe that only Apollo 7 and Apollo 9 were real because they never had to pretend to leave Earth's orbit. These were the missions that got us back in the space game after the fire. In addition, if the big bucks were to continue flowing, NASA wouldn't have chanced faking this one!

*The remaining Apollo flights may have orbited the Earth for a while, but probably used the emergency escape rocket to bail out before orbit was even established. The astro-nots would have dropped into the south Atlantic and been rescued by CIA ships. After a nice vacation on a sunny beach, they were flown out to the recovery zone and dropped, capsule and all, out of one of the CIA's huge cargo planes. The CIA owns the largest commercial air fleet in the world, including huge cargo planes which operate year after year. I originally wrote "The CIA has tremendous outgo — except for our taxes — has no other known income (except that provided by gun running, the importation of aliens and drug deliveries). What customs or immigration inspector ever checked out a single one of their planes or boats? By definition the CIA is hardly a clean operation." Since NASA continues to operate after their budget was chopped, we know now that all the bureaucracies must receive some direct funding from the FED. I have also found out that our income taxes disappear into the International Monetary Fund.

Collins claims that all his doubts were expressed by NASA's safety chief three days before the Apollo 8 flight. "While the flight posed fewer unknowns than had Columbus's voyage, Jerry said, the mission would "involve risks of great magnitude and probable risks that had not been foreseen. Apollo 8 has 5,600,000 parts and one and one half million systems, subsystems, and assemblies. Even if all function with 99.9 percent reliability, we could expect fifty-six hundred defects ..." "

Mike Gray in *Angle of Attack* writes, "To reach the moon and return, some three million pieces of manmade artifacts had to interact with an almost mystic cohesion here-

tofore seen only in Nature herself. The fact that the machine worked at all was a miracle. *
See note at end of chapter. "The fact that it worked with such stupefying precision was evolutionary." ¹²

Before Collins went out to risk flesh and bone on the mythological Apollo 11 he said, "I think we will escape with our skins, or at least I will escape with mine, but I wouldn't give better than even odds on a successful landing and return. There are just too many things that can go wrong." ¹³

After this reflection where he gives even odds, NASA tosses the coin and comes up heads seven times in a row! The odds against doing that with a coin are 128 to 1. The odds against that, considering the capsules and rocket enginess, are so incredible that God must have indeed been the co-pilot on these missions.

However, to all of us who were glued to the TV, myself included, those ". . . million souls who watched dumbstruck as the great machine ascended, there could not have been the slightest doubt that this thing was leaving the planet." ¹⁴

Against odds like this NASA claims to have launched nine birds all the way to the Moon and back with no loss of ships or life. Sure! And yes, Virginia, there is a Santa Claus, Easter Bunny and Tooth Fairy, the check's in the mail, and no, the computer is never down!

The Apollo 8 & 10 flights acted like the prelims on a fight card by attracting attention. They helped set the mood until the real soap opera could start. Lift off was the only real thing about each of the later missions. The astro-nots had to be aboard when the rocket was launched — in case it was destroyed during that launch, as was the Challenger Shuttle. Three live astro-nots couldn't be miraculously explained away. We were gullible, but this would have been too much to ask even us to believe.

If they were alive, when all should have been dead, even CIA heavy hitters might balk at triple whacking American heroes. Because people are criminals doesn't make them any less patriotic. Jimmy Carter's Pentagon learned this fact the hard way on that mis-adventure to Iran when they tried to free the American hostages. Shortly after our assault copters landed in the desert the troops caught a few smugglers, but the commander in charge of that mission foolishly let them go. He thought because they were criminals they would not report the Americans. But they went straight to the police and ratted out the mission.

Look at my own case. If someone had told me in the late fifties after my war with the army, that I would risk ridicule or worse to warn my country of disaster looming ahead, I would have laughed at them. I have discovered that patriotism does not involve supporting the current administration. True patriotism doesn't depend upon any political leader's opinions in a matter. It deals with what is good for the people as a whole. The trillion dollar Mars hoax will drown all of us.

Now that we have reviewed the actors, let's proceed to the space opera itself. During the Gemini Program NASA's focus slowly changed from solving real technical problems involved in forcing a new technology into existence, to the invention of cliff hangers for each new episode. Either the problems were simply too large to be solved, or they got too involved with Cold War dis-information.

And real problems did exist — in such copious numbers that nothing had to be invented. In December 1966 a report made by Joe Shea noted, "At least 20,000 failures of all kinds had been logged, he said, more than two hundred of them in the environmental control system." ¹⁵

In *Journey To Tranquility* the authors point out, "In short, the two main engines of the lunar module had to be infallible. Yet in January 1968 the ascent engine in particular was proving to be only too prone to error." ¹⁶

People who go adventuring in real life, unless they are suicidal, try to whittle down the odds against them by proper planning and provisioning. In a showbiz production, the excitement is frequently heightened by the dumbness of hero or heroine. For instance, our hero is shoved around by goons. Smack! Smack! Smack! They deliver the message from Mr. Big. Our hero lives; wakes up in a hospital to find either that his wife was raped and little dog killed, or vice versa.

Does he take out the top gangster that sicced the goons on him? Not quite! Throughout the rest of the production, he kills the underling goons five at a time, but never once does he take out Mr. Big. Only in the last scene, does our hero whup Mr. Big's ass and sends him off to jail with a black eye, instead of the grave where any normal man would have put him. Everybody in the audience over the age of twelve knows that Mr. Big will be out of jail on bond in a matter of hours. I guess that's show biz.

In the NASA serials Mr. Big was space and if NASA failed to maintain sufficient public interest, Congress would cut a good portion of all those beautiful bucks. To maintain interest they needed to create situations that promised danger and harrowing escapes. Never mind the fact that you will soon learn that not one manned mission dared go beyond the safety of our Van Allen radiation shield.

For example, on the Apollo 11 mission the LEM's computer gave out a "busy signal" in its final descent to the lunar surface. Then they had the added excitement of missing their planned landing area so much that NASA was in effect screaming, "Car 54 where are you!" Or close enough to it.

Then there was the great evacuation flap when Armstrong and Aldrin took four hours to evacuate once they were on the Moon. Practicing quick evacuations here on Earth take some time, but 4 hours is ridiculous. They complained that too much gas got in the way. But finally, because they had "The Right Stuff" they were able to get rid of the gas and go about their real job, bopping around the Moon mouthing platitudes. I speak here of the air in the LEM, naturally.

Harry Hurt tells us, "Armstrong and Aldrin expected their EVA (walk on the Moon) preparations to take about two hours, but they ended up taking twice that long because the exhaust gases from the backpacks compounded the difficulty of depressurizing the cabin of the lunar module." ¹⁷ But please remember what you read about the suit's air conditioning not being able to work once they entered the LEM.

Well, Buzz, wasn't the Command Capsule a mansion in comparison to the LEM's tiny cabin? If it took you 4 hours to vent the LEM in space because of your exhalations, how

could you ever believe NASA when they told you (before the Pad 34 cremation) that an oxygen fire could be quickly vented to space?

Not to be scatological, but that scenario is so much bovine fecal matter. I used to scuba dive and know that a man breathes a bit less than 72 cubic feet of air an hour in shallow water. Four-fifths of that is nitrogen which wasn't carried to the Moon. That leaves us with about 15 cubic feet of exhalation per hour per astro-not. In two hours that would be a grand total of 60-cubic feet of free air. This is the volume of a box that is 4 feet on each edge, or a big balloon a little over 3 feet in diameter. Not very much gas to worry about is it?

But they had to contend with even less than that because they had lithium hydroxide canisters which removed the carbon dioxide from the used oxygen so that it could be re-breathed. The space suits must have released little or nothing in the waste gas department, else we would have seen the water vapor in the exhausted gas periodically explode out from the suit into the zero pressure of space. Had that happened in real space, that water would have flashed into ice crystals as they were ejected, making a splendid showy snow.

Collins tells about such a show. "After breakfast I hook a full urine bag to the overboard dump and am rewarded with the usual snowstorm of escaping white particles. The constellation "Urion," as Wally Schirra has dubbed it, is formed by the instantaneous freezing of the urine stream as it reaches the vacuum of space and breaks into thousands of individual miniature spheres." ¹⁸

And even if they weren't scrubbing the gases on the LEM, the amount of gas we are talking about here would have passed through a pin hole in two hours. This is another whopper that Burger King had no part in creating! Here on Earth when we blow up balloons, they have a quantity of air at about a half a pound positive pressure. What happens when we let go of the narrow neck? PSSSSSSSSSS and all the air is gone. In space and on the Moon they use oxygen at 5.2 pounds positive pressure and they are trying to tell us that PSSSSSSSSSS no longer works. Look how much air a leaf blower moves and its working pressure is less than a half pound over atmospheric.

We read about how the Apollo 12's Lander almost dropped into the crater that held the Surveyor III. What was the only thing that prevented disaster? "The Right Stuff! The LEM was maneuvered safely to the far rim of the crater and teeter-tottered almost toppling over the rim. But our heroes' luck held and it settled down safely. The TV audience watching that exciting mission was small. The TV coverage was still superlatively lousy, so many people opted for the Ed Sullivan Show instead.

Before we proceed to the Apollo 13 episode of the space opera, we shall break in order to introduce the subject of the thermal roll. At the beginning of the Mercury program NASA found that the heat shields would crack if left too long in the cold of space. So Joe Shea, NASA's chief administrator, asked a pregnant question. "Shea asked how long it took for the heat shield to cool down to the point where problems began. The answer was about thirteen hours. So why did the spacecraft have to stay in the same attitude for that long? Why couldn't it rotate, so the heat shield would remain nice and warm all the time? And that was the origin of what came to be known as the "barbecue" mode, or passive thermal control (P.T.C.), in which the space craft rotated once an hour all the way out to the Moon and back." ¹⁹ My question is why didn't they point the shield directly

at the Sun instead?

Back in 1969 NASA's world famous space opera could easily have been called, "How The Ship Turns!" or the working title, "Rotate on This!" But the NASA script writers decided to spark up our jaded appetites with a close call. Accordingly, Apollo 13 had an oxygen explosion in the service module while it was half way to the Moon. The command capsule was knocked out of business and the power generation system was lost. Quick thinking by the men with "The Right Stuff and Houston Control got the fully charged batteries of the LEM to save the day.

However, without the heat supplied by things electrical the ship got a little bit cold. Not as cold as Maine fisherman live through most of the year, not as cold the homeless get in Chicago in the winter, but cold.

As Hurt tells us: "the astronauts' greatest physical discomfort was sheer insomnia resulting from their inability to get to sleep. Their insomnia resulted in large part from the loss of their primary electrical system. Although they spent their waking hours in the lunar module, they spent their rest periods in the darkness of the command module. With the power shut down, the temperature inside the mothership dropped to thirty-eight degrees. The astronauts tried to put the mothership into a thermal roll, but the maneuver, which turned out to be more of a wobble than a roll, failed to warm up the interior of the command module more than a few degrees. Appropriately, they dubbed the mothership "the refrigerator.""²⁰

Once they were down on the ground, NASA magically discovered the cause of this little drama. They said a bad order to a technician months before had cooked the safety switch on that oxygen tank.²¹ They must have the power of second sight to be able to pin the blame with such assurance since the service module was left in space. Either that, or this is the arrogance of accomplished con men.

The next episode in the serial is even better! As the Apollo 14 LEM was descending to the Moon the abort light on the control panel lit up.²² Harry Hurt explains what happened after the mission: "Only after their return to Earth did they learn that the bug illuminating the ABORT light was a loose solder ball in the wiring."²³

How did NASA discover that drop of loose solder after the LEM was dropped back onto the Moon? I'm really beginning to believe that the CIA resurrected Merlin the Magician and gave him a job with NASA as the assistant to the Wizard of Oz. Something else equally amazing happened on Apollo 14, but it's too good to tell now so I'll save it for the end of this section.

By the time it was Apollo 15's turn at bat, NASA's Nielson ratings were way down. The writers scripted another close call. This one had to be dramatic. This time the astro-nots almost drowned in space! Hurt explains, "On Day Three of the mission, when the astronauts were about two-thirds of the way to the Moon, the command module Endeavor sprang a water leak that threatened to flood the entire cabin. Scott, Irwin and Worden realized that a plumbing emergency in zero G could turn into a terrible nightmare, for there was no gravity to help them bail out the ship."²⁴

And then, in the nick of time they fixed the leak. I wonder how much water you can carry in a service module? Is it really enough to flood the command module? Even so, it could all be ejected in a whoosh! All that would be necessary would be to suit up and open the venting valves. Or better yet, take a tube connected to that valve and literally vacuum up the water in little slurps and directly eject it into space.

Since the same old hum-drum landing spots were getting boring ... they decided to land in the mountains this time. Hurt tells us about it: "Early on the morning of July 31, 1971, the day of the landing attempt, Scott and Irwin had to confront the special dangers posed by the Hadley-Apennine region, whose rugged topography resembled the southern Rockies of the U.S." ²⁵ This is truly unbelievable. If they wanted rocks from that particular mountain why didn't they wait until Apollo 17, when they would have a full-fledged geologist aboard?

Apollo 15 was also the first landing with the Rover strapped on the LEM. Imbalance in loading is the bane of airplanes and ships who use loading specialists to balance the loads. No matter how they loaded the Rover on the LEM, it had to create an out of balance condition as soon as the LEM entered any gravity field. It simply couldn't be centered. How do you land an unwieldy single jet vertical landing machine that's unbalanced? And why would you want to drive an experimental vehicle in a rugged mountain range?

Remember how before the Apollo 11 landing they were peeling Mylar from the LEM to get the weight down? But now they are carrying Rovers and supplies for extended stays, using the same machine that almost ran out of fuel on the much lighter Apollo 11's descent. How could this be? Apparently they suddenly had no more worries about either heat, oxygen, fuel or radiation. Did we miss something here? Of course, this Lander repeated a previous thriller. It landed on the edge of a crater and rolled around a bit before settling in.

²⁶

On Apollo 16, the next segment, a new trouble surfaced. The gremlins had finally managed to slip past the Army, Navy, Air Force, the Marines and — NASA. They got on board this bird. Harry Hurt writes that Mattingly reported, "I don't know what's wrong with this thing," "It feels like it's going to shake the spacecraft apart." ²⁷ A few more heart palpitations, sure. But they landed OK.

Now, as promised, we bring you now the strangest part of this chapter. The Moon has 1/6 of Earth's gravity and absolutely zero air resistance. Even a duffer on the Moon should smack a golf ball about a country mile. A ballooned space suit might make a smooth swing a little bit harder, but even if this difficulty did not exist one could get by using one hand. Which allegedly is what Alan Shepard claimed he did. He rigged a club out of a metal flange and the handle of a sample retriever. When ready he dropped a smuggled ball to the ground and announced his intention to Houston and the watching world. The TV camera focused on him and he said, "'I'm going to try a little sand-trap shot here,". Then, as the world watched, he jerked his club back and swung at the ball and missed. Then he tried again.

"The ball popped almost straight up in a cloudy divot of moon dust, and seemed to hang in mid-flight as if suspended on a string. Then it tailed off to the right, and fell back to the lunar surface less than 100 yards away.

'That looks like a slice to me, Al,' teased CAPCOM Haise.'"" 28

Simple enough. A man sees a chance to make golf history with the whole world watching, even though he slices the ball. To dissect this absurdity I need digress again. When I was a kid I was able to see patrolling dragonflies snatch mosquitoes from the air. They never miss. When they dip, another bug is gobbled. I like dragon flies because I hate mosquitoes. I mention this only to show how good my eyes were. Rest assured that in playing baseball I knew a curve ball when I saw one.

So, when I was in high school taking physics from the school's (least athletic) teacher, he told us that a curve ball was a no-such. I took most of his teaching like a man. I didn't snivel when he said Einstein informed us that star travel could never be; I didn't even make much of a fuss when he lied about the no-suchness of giant squid. But this time he had gone too far. I saw balls curve.

Yet, nothing a kid could say would shake him from the vows he took when they handed him his degree and he swore to defend modern science; to never believe in the unexplainable which is defined as anything not printed as acceptable in the current physics theories. Years later, of course, physics bent just a bit and they finally admitted that a ball could curve just as baseball players knew all along. They went on to add that it curved because of Bernoulli's Principal.

A rotating ball induces unequal air flow over the ball's surface. This creates unequal pressures on opposite sides of the ball, which is then push-pulled from its straight inertial path. The magic word is air. Without air there would be no Bernoulli's Principal. Without air that ball, whether rotating or not, could only obey Newton's first law which simply and clearly states, a body in motion tends to remain in motion.

No one has really worked out all the physics of curving baseballs, yet, nor golf's hooks and slices. Golf balls are dimpled, for example, to make a rough surface — which makes for more turbulence, which supposedly counteracts Bernoulli's Principal. Nonetheless, you can't throw a curve, or slice a golf ball, without an atmosphere. In early June 1994, Shepard was on a Washington DC radio station and he now claims that he "shanked" that ball because a ball can't curve in a vacuum. Since the camera was stationary a shank would have exited the camera's field of view almost immediately. A shank is when the ball skids sideways off the face of the club.

Al, everybody saw it slice on that original tape. If there was air on the Moon why didn't you tell us? If there isn't and that ball was shanked as you claim, then we all need glasses with very thick lenses. Or is it that the tape, your report, and the mission were all simulated?

Note: that statement was made years ago. Since then, some NASA video footage (with sound) has surfaced (made in low Earth orbit) and dated July 17, 1969, when they were supposed to be halfway to the Moon, shows the Apollo 11 clowns faking pictures of a receding Earth by blacking out the ship and moving the camera further from the port hole thus "proving" they were actually going to the Moon!

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2. p. 139, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
3. p. 23, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
4. p. 270, RETURN TO EARTH, "Aldrin", 1973, Random House
5. p. 277, Ibid.
6. p. 274, Ibid.
7. p. 323, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
8. p. 280, RETURN TO EARTH, "Aldrin", 1973, Random House
9. p. 280, Ibid.
10. p. 176, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
11. p. 307, Ibid.
12. p. 7, ANGLE OF ATTACK, "Gray", 1992, Norton
13. p. 364, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
14. p. 275, ANGLE OF ATTACK, "Gray", 1992, Norton
15. p. 185, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
16. p. 223, Ibid.
17. p. 173, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
18. p. 246, CARRYING THE FIRE, Collins", 1974, Ballentine Books
19. p. 176, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster
20. p. 212, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
21. p. 404, APOLLO The Race to the Moon, "Murray & Cox", 1989, Simon & Schuster
22. p. 223, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
23. p. 225, Ibid.
24. p. 235, Ibid.
25. p. 235, Ibid.
26. p. 236, Ibid.
27. p. 245, Ibid.
28. p. 230, Ibid.

THE MANCHURIAN CANDIDATE

In my second year of high school I read extensively about the world's most modern religion. I used both the school and the public library, and after extensive reading purposely chose not to join. I speak here of the religion of psychiatry and its three major sects led by the respective prophets named Freud, Adler and Jung. I eventually came to refer to these men as Fraud, Addled and Junk.

It turned out, that in the dogma of psychiatry, my love of the outdoors, camping, fishing and hunting and shooting, were all pronounced as symptoms of repressed homosexuality by big city boys. My gun was an extension of my penis. Every shot I fired was a sublimation of my sexual desire for men or boys, and for all I know maybe even male dogs.

Naturally, if you searched your soul and failed to find any such feelings, then you were diagnosed as repressing and sublimating. Since I've always cared more about what I thought than what anyone else thought about me, I could easily have swished out of the closet had I been in one.

While the old established religions bore down on the ever popular sins of sex, greed, gluttony, coveting and murder, this new one expounded a new sin: the sin of being mentally sick to one degree or another. To this new religion piety got you nowhere. Everyone was a sinner! I had a little problem with this belief because I felt I was being tarred with a very broad brush wielded by big city boys who thought a trout was a used condom floating in the Hudson River and believed a sucker was someone you sold the Brooklyn Bridge to.

So I rejected psychiatry, even though I learned a little of the psychiatric jargon. According to many practitioners, everyone is swept by either the dust brush of neuroses, or by the broom of madness; their basic tenet, of course, is that everyone needs their 50 minute hour ministrations forever. After all, wouldn't we all want desperate customers willing to pay us good money for a couple of hours a week?

A few years ago I heard that magic and most descriptive term "psycho-babbler" which I have enjoyed using ever since. Just because I don't believe in the psycho-babbler's particular dogma doesn't mean that I am unaware of mental illness, drug altered states and hypnosis. Like most of us, I have become emotionally crazy at times. But, I have also had a few periods, admittedly short, when I was completely sane. I feel I probably know more about both states than the average bear.

I know enough about hypnotism to be absolutely sure that when some expert hypnosis assures you that he can't induce you to do anything against your morals, nor make you do anything you wouldn't ordinarily do, it's time to run like hell. That's simply not true!

I firmly believe that each of us is capable of doing anything imaginable, given the proper encouragement and setting. Hypnosis is the technique by which a subject's perception and thinking processes are altered by suggestion alone. The stylish fads that periodically ripple through society are examples of the inherent power of suggestion.

In our society one of the biggest single no-nos is killing another human being. For those who like to think they could never kill I have news for you. We are all installed with belief by the authority figures who formed our EBS (Emotional Belief System) while we were still young and our logic centers were not yet mature. It is not all that hard to start teaching young soldiers how to kill. What governments have always found difficult is to get them to stop after the war is over.

Fortunately, in most people the brainwashing techniques (pioneered by the Chinese using the North Koreans and perfected by the North Vietnamese) wear thin after awhile. I wonder how long it would take a perfect brainwashing job to wear thin on one of the 'Manchurian Candidates', especially if it went against a person's moral code. Even beneficial hypnotic suggestions such as stopping smoking, or other self-admitted bad habits, wear off in time. Imagine how much deeper suggestions, like those that go against your moral grain, must be implanted. How much faster do they erode away? For there to be a life-time of deceit, I believe the subject must finally accept the lie!

Whether brainwashing was used or not, these astro-nots were inducted into NASA's web of lies one at a time and one lie at a time, very carefully. Some of them were West Pointers who supposedly never lied before. Yet, here we have a developing situation which would turn all of them into a pack of the greatest liars the world has ever known.

The only logical reason I can find for Grissom's behavior shortly before the fire is that he had been brain-washed (but it was wearing thin). He had to know that NASA lied, for whatever reasons, about the brilliance of stars and planets in space. This always raises the question that if Grissom was aware that the program was a hoax, why raise a fuss? It's one thing to get mad at shoddy work when your life depends upon it, but it's totally dumb, if not insane, to get mad if you are not in any danger, and are in on the scam.

Grissom was neither stupid nor mad. The dilemma is that he couldn't have known. Yet, he must have known! He had flown twice before. He was the second of our men to probe space during the Mercury Program, and he also flew on the first Gemini mission. After the first flight he came back and told the party-line lie about the dim and fuzzy stars. And, by his silence after the Gemini mission, protected that lie. He didn't know, yet he must have known. This problem defies resolution, unless he had been hypnotically altered and it was wearing off.

Concerning his two flights, both of these missions had to be legitimate because I have found nothing to suggest otherwise. But at the time of the fire he was possibly resisting NASA's not too subtle hints about how true patriots would lie to their fellow citizens for their country.

The fire on Pad 34 was not utter, compound idiocy. It was murder! If NASA had killed other astronauts in a series of strange 'accidents', then that raises suspicion about the shuttle that blew up a few years later. Challenger was the first one to fly with a civilian on board. Did she, a knowledgeable teacher, start to ask too many questions?

If you suspect our astro-nots have been doctored by the psycho-babblers then they crumble from basic heroes into pathetic figures. If you believe they were consciously lying, and lied their way to fame, then they are despicable.

I firmly believe that they are liars, since too many years have passed and not one has come forth to tell the truth. Normally one would expect some of them would have relieved their mental stress by confession; unless, of course, their hypnosis is being continually upgraded and reinforced. Is this far-fetched? Wives, friends and relatives would always be asking questions about the Apollo missions which would tend to weaken the altered state.

It is not as if they committed some heinous crime like murder and no one else knows, allowing them to literally forget the incident. They allegedly went to the Moon and everybody they know must talk about it now and then.

So the question still arises. Were they just bad actors who saw a shot at fame and glory and took it? Or were they Manchurian candidates who, to this day, are still subjected to mind-control by the government? Either way, the choice was bad for everyone concerned. Much better had NASA given the Moon shot a hell of a try and failed, rather than "Mooning America" by deception.

SUNSTROKE

This section has been in constant revision from the first day I began to write it during the beginning of December 1992. What was needed was a combination solar physicist, nuclear engineer and medical doctor who specialized in radiation poisoning. Unfortunately, I couldn't find such a person so we are stuck with each other.

I requested the solar data from NOAA (National Oceanic & Atmospheric Administration) for the years of the Apollo missions to the Moon because I hoped to find just one big X-ray and proton exuding flare that took place during any one of the missions. We would have heard about cooked astro-nots, right?

I felt I didn't dare reveal why I wanted this information, so being the clever devil I am, I wrote to the Geophysical Data Center in Boulder, Colorado with an invented story about correlating solar flares with some concise weather records my grandfather had left me. Heh! Heh!

The NOAA people were polite and prompt. Mr. McKinnon sent me some pamphlets and disks with compressed data which my computer couldn't read. I had a friend explode them to find the data columns were over 83 columns wide. However, these columns had no headers. Have you ever seen data columns without headings? Neither have I.

I copied the data for those time periods onto new files to play with. I tried for two long days to locate the columns containing the X-ray data and failed. This column contains only the letters C, M, and X and I should have found it even without the headers. I finally called Mr. McKinnon and bluntly asked for the column numbers for the X-ray and proton data. I was glibly sidetracked and then told that I would receive more information.

While waiting for NOAA's promised package I tried again and again to determine the X-ray data. I finally came to the conclusion that NOAA was a more clever devil than I and had cooked the files. That's difficult to accept because this was scientific data that had little to do with the space shots. It's the sort of data that regularly goes to universities and scientists all over the world, plus to companies that operate air lines, power plants, radio and TV stations and telephone systems.

This premise seemed too far out, so I had to conclude that if the X-ray data was deleted there had to be two sets of data, one that would be sent to scientists and organizations on a preferred list, and the other, sent to casual strangers, like me.

Then I wondered if they eliminated this pertinent data from only those days the astro-nots were supposed to be in space. We checked the rest of the disks to find that there was no X-ray data. While I tried to get the smoking gun (space radiation data) I proceeded to assemble what I had.

The chart below is a monthly list of all solar flares for a period of 25 years from solar cycles 19, 20, and 21.

MONTHLY COUNTS OF GROUPED SOLAR FLARES

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	508	584	4803
1989	689	539	658	485	686	971	473	684	699	535	640	507	8132
1990	536	415	664	439	565	433	447	703	436	569	619	672	6498
1991	659	491	625	570	458	573	582	581	425	565	396	544	6469
Grand Total													134793

A fast scan of the chart shows that the ideal year for venturing into space and gamboling on the Moon was 1976 which had only 614 solar flares. However, even during such low emissivity times there is a danger. Immense proton and X-ray emitting flares can, and do, erupt even during the low portion of a solar cycle, as shown by the tremendous series of flares during August 1972.

The accepted theoretical apex of Solar Cycle 20 was from December 1968 through December 1969. During this period Apollo missions 8, 9, 10, 11 & 12, allegedly left the protection provided by the Van Allen Belt (shield) and entered lunar space.

Further examination of the monthly chart showed that the individual solar flares are basically random occurrences, and are superimposed on the 11 year solar cycle. Nonetheless, there can be a high flare count for short periods, even during the low in the cycle. There can be a low count for short periods during the peak, but the point to remember is that extremely powerful flares can randomly occur at any portion of the cycle.

During the era of the Apollo missions (1969 to 1972) , there were 27,019 flares or 19 storms a day so I decided to run my own imaginary contest to see which Apollo team of astro-nots would win the booby prize for being zapped by the highest number of flares while in space. Traveling at 26,000 mph, a mission to the moon spends only minutes under the Van Allen belts. Then the astro-nots spend about an hour in the belts' regions where the higher radiation is trapped (see The More On Space Radiation addendum). Although the higher radiation here serious, it is miniscule compared to what is released by one big solar flare.

By dividing the number of flares in a month by the number of days in that month I found the average number of flares per day. Then by multiplying that average by the number of days in a mission I found the total average flares per mission.

The chart below lists each Moon mission, and the average number of flares each day of that period. It also lists the total number of flares each team of astro-nots were never exposed to while not flying to the Moon. Just like you can't get a tan in a subway, you can't get dosed if you aren't in space.

ASTRO-NOTS RADIATION EXPOSURE

Mission	Dates	Days in space	Total flares in month	Average per day	Trip Total flares
Apollo 8	12/21 to 12/27 1968	6	640	20.64	123.8
Apollo 10	05/18 to 05/26 1969	8	839	27.06	216.5
Apollo 11	07/16 to 07/24 1969	8	489	15.77	126.2
Apollo 12	11/14 to 11/24 1969	10	566	18.86	188.6
Apollo 13	04/11 to 04/17 1970	6	688	22.93	137.6
Apollo 14	01/31 to 02/09 1971	10	551	18.69	186.9
Apollo 15	07/26 to 08/07 1971	12	693	22.35	268.2
Apollo 16	04/16 to 04/27 1972	13	361	12.03	156.4
Apollo 17	12/07 to 12/19 1972	12	210	6.77	81.2
	Total	85			1485.4

Note: on dates that extend through two months the numbers for both months were averaged.

My personal "Most Flares Avoided" award goes to the Apollo 15 team composed of astro-nots Dave Scott, Al Worden and Jim Irwin. They won hands down. I'm tempted to become somewhat sarcastic about this mission. However, Jim Irwin paid a severe price in mental stability for his "fame and glory" before he died, so I will hold back on the sardonic comments here. It seems Irwin was in touch with Bill Kaysing just before he died. I like to think that maybe he was about to 'fess' up when he had his fatal heart attack on August 8, 1991. Heart attacks, especially for middle-aged men, top the list whenever any covert agency wishes to silence someone who has become an 'enemy' of the state. The reasons may be specious or even false, but that doesn't seem to deter them. Nor does it seem to bother citizens who are "law and order" monomaniacs. Their numbers are now legion. Witness the popularity of TV shows that glorify flagrant violations of our Constitution by the police, etc.

As far as the all the other Apollo astro-nots are concerned, I'm sure I received more radiation from my CRT computer screen in writing this book than they ever received from the 85 days they weren't in lunar space. In that same ostensible time period if you use the grand total of 134,793 flares from the first chart, then 1485 flares burned their way across the Sun. They never received a dose of radiation. Amazing!

In the meantime, the special information promised by NOAA arrived in the form of a book and a user's guide to the data. The guide provides the format for data after 1975 so it was almost useless for my purposes. It did however help to give me a small education in

solar flares. The book, NOAA TECHNICAL MEMORANDUM ERL-22, was written by J. A. McKinnon, a NOAA expert on solar flares. The book's subtitle is August 1972 Solar Activity and Related Geophysical Effects , and specifically details the effects of an immense series of solar flares that occurred from 8/2/72 through 8/11/72. These flares, the most spectacular series of solar flares in the twentieth century, originated without warning from a region of the Sun known as 331.

McKinnon begins his book with this statement, "In early August 1972, a series of solar flares from one region on the sun's disk made national news. The geophysical effects that followed reaffirmed to laymen and scientists alike that the sun can act as a formidable source of radiation." ¹ Wait a minute! Didn't the Russians try to tell NASA that in 1963?

Mike Collins also told us that the flares were predictable in July of 1969. During the years of the Apollo missions those long range (27-day) forecasts that NOAA provides, mostly to communication and power companies, were about as accurate as a 27-day weather forecast by NOAA. On July 19, 1972 the long range forecast read, "27 day forecast for 20 July to 16 August 1972: No significant increase in solar activity is expected." On August 2, 1972 it read, "Forecast for 03-09 August 1972: Solar activity is expected to remain at a low to moderate level." ²

McKinnon, the government expert, writing some years after the Apollo 11, has this to say about NOAA' predictions: "The activity from region 331 was not covered in any long-range forecasts." ³ The words 'not covered' mean simply in plain English that the long range forecasts completely failed to predict them.

The short-term forecast at 2200 hours on August 1, 1972 claimed the average probability for the severe class X flare as 7 %. For a proton event it was 9 %.⁴ Yet less than 4 hours and 50 minutes later solar Region 331 produced its initial major flare. It was the first in a series that culminated in a 5 day period producing the greatest solar activity recorded in this century. And that, despite the fact that the Sun was near the minimum of its cycle. What now can we make of Collins' statement that NASA had a way to protect the Apollo astronauts from solar flares when they were in space years before. Even NOAA's next day forecasts made during the actual event were understated.

Speaking of solar flares in general, McKinnon says, "A probability of 10-20% should be considered a low probability for class M events,..." ⁵ In plain English he is saying that even at the bottom of the cycle, one flare in five is large enough to emit M (medium) strength X-rays.

McKinnon continues, "Probabilities of the order of 1% are considered low with respect to class X flares." ⁶ X rated flares are the strongest. Proton events are also extremely hazardous to anyone outside the Earth's Van Allen Belt. It seems that protons and X-rays travel well under the speed of light. As far as warning goes, the X-rays begin to bombard Earth within an hour of generation. Some of the more energetic protons can make the trip in 38 minutes.⁷ This means an even shorter warning time.

Once in space, even if NOAA could issue an early warning about major solar activity, what could the astro-nots do about it? Get into their fabric suits and hide behind the tissue-

paper-thin walls of the command module and LEM? According to John Wilford the SWIP program (Super Weight Improvement Program) whittled the outer skin of the LEM until it was, "about the thickness of heavy-duty aluminum foil..." ⁸

Despite all the weather stations and their modern equipment, radar, satellite observations, etc. any realistic meteorologist will admit that weather forecasting is still more an art than a science. Frequently it seems mostly inspired, intuitive guesswork when it turns out to be right. It seems the Old Farmer's Almanac, prepared a year in advance, is just as accurate as the 29-day forecast. Would you bet your life on tomorrow's weather forecast?

Solar flare prediction, of course, is not even as accurate as a weather forecast. By actual measurement, heavy-duty aluminum foil is a little over one thousandth of an inch. Would you want to bet your life on next weeks solar forecast while hiding behind such walls?

The following quote is from Prospects for Interstellar Travel by John H. Mauldin. The author worked for NASA on the Voyager missions, has a Masters in physics and a Ph.D. in science education. He writes:

"By comparison, solar flares can deliver GEV protons in the same energy range as most cosmic particles but at much higher intensities. Increase of energy accounts for most of the increased radiation danger because GeV protons or their products will penetrate several meters of material." Mauldin goes on to say that, "Cosmic particles are dangerous, come from all sides, and require at least 2 meters of solid shielding around all living organisms." Mauldin then states, "Solar (or star) flares of protons, an occasional and severe hazard on the way out of and into planetary systems, can give doses of hundreds to thousands of rem over a few hours at the distance of Earth. Such doses are fatal and millions of times greater than the permitted dose. Death is likely after 500 rems in any short time, ..." ⁹

I wonder if NASA told the astro-nots that? Perhaps now, NASA will claim that lead-lined shielding was carried on the LEM. Perhaps such mythical lead coffins were the real reason why they patiently scraped away layers of mylar to lighten the capsule? And if the LEM had lead coffins wouldn't the command module have needed to carry three more? Did they transfer two of the coffins back and forth?

It wouldn't matter if the shielding material was made of lead or not. Radiation shielding depends mostly on the mass and density of the material that is between the source and the victim. Lead is effective because of its high density. On an equal weight basis a layer of water is even more effective, despite its lighter mass, but lead is less bulky.

Never mind, NASA had no need for lead coffins because according to them, "The TMG (thermal-meteoroid garment) part of the suit assembly also shielded them against those high-energy nuclear and electromagnetic particles that speed throughout the universe and would have a deadly effect when they strike human tissue if there were no atmosphere to slow them down and stop them." ¹⁰

Wow! First of all the Van Allen Belts are the primary shield, and this NASA suit space fairy tale is a thing of beauty. If a dozen layers of ultra fine spun glass cloth, doped with

silicon rubber, some aluminum threads and a coating of teflon can stop particles that may be up to 2 gigavolt (2 billion EV), then imagine what they could do in an atomic reactor where the particle energies are below 18 megavolts (18 million EV). Why one could romp around in Three Mile Island's melted down, still hot, reactor all day long in such a splendid garment.

There is another anomaly in the data on radiation. The engineering physics department of the Royal Aircraft Establishment in Great Britain requires that any dosage in excess of 10 millirems per hour calls for a lowering of altitude on the SST transport (Super Sonic Transport). This plane normally cruises at an attitude of 65,000 feet on great circle routes over the pole. Should the dosage approach 100 millirems then they must change their flight plan and avoid the polar route entirely. "

The SST is the air transport of choice for the rich and powerful. A hundred millirems, which is equal to .1 rem, is considered too much for them to bear. Whoever designed the chart below must believe that the poor and powerless are similar to cockroaches in their ability to harmlessly absorb huge amounts of radiation. Folks who can't afford to fly the SST can take 100 rems with no real harm done. But that's OK. The men with "The Right Stuff can take up to 150 rems.

Because of the SST rulings and Mauldin's flat statement death is likely at 500 rems I find the chart shown below, from McKinnon of NOAA, a little beyond the limits of belief. ¹²

Expected Effects of Acute Whole-Body Radiation Doses

Acute Dose (rems)

- 0-60 No obvious effect, except possibly minor blood changes.
- 100-150 Vomiting and nausea for about 1 day in 5 to 10 percent of exposed personnel; fatigue, but no serious disability.
- 160-210 Vomiting and nausea for about 1 day, followed by other symptoms of radiation sickness in about 25 percent of personnel; no deaths anticipated.
- 220-270 Vomiting and nausea for about 1 day, followed by other symptoms of radiation sickness in about 50 percent of personnel; no deaths anticipated.
- 340-420 Vomiting and nausea in nearly all personnel on first day, followed by other symptoms of radiation sickness; about 20 percent deaths within 2 to 6 weeks after exposure; survivors convalescent for about 3 months.
- 500-620 Vomiting and nausea in all personnel on first day, followed by other symptoms of radiation sickness; about 50 percent deaths within 1 month; survivors convalescent for about 6 months.
- 690-930 Vomiting and nausea in all personnel within 4 hours from exposure, followed by other symptoms of radiation sickness; up to 100 per-cent deaths; few survivors convalescent for about 6 months.
- 1200 Vomiting and nausea in all personnel within 1 to 2 hours; probably no survivors from radiation sickness.
- 6200 Incapacitation almost immediately; all personnel will be fatalities within a week.

* Dose due to protons with energies > 10 mev.

This table must have been concocted by the same governmental geniuses that stationed US troops close to ground zero at those early A-bomb tests in Nevada. Those explosions were as powerful as those used in Japan. But then, after the burst, they had them charge toward ground zero without any protection. Ah, well, if we can believe this chart you and I have no real worries about a dose almost 1000 times higher than the allowable limit for SST patrons.

From page 4 through 14 in McKinnon's book there is a tabular chronology of these events including a series of small tables to show the accumulating doses that astro-nots might have received had they been on a mission during this period. One table shows skin and organ dosage, and is further divided into other columns showing the shielding provided by the suit during a Moon or space walk, the radiation absorbed inside the LEM and inside the command module.

Apollo Radiation Hazard (rems)

August 2, 1972				August 3, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	3	0	0	Skin	9	1	0
Depth	0	0	0	Depth	0	0	0
August 4, 1972				August 5, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	2397	1082	316	Skin	2899	1236	341
Depth	85	68	32	Depth	88	70	33
August 6, 1972				August 7, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	2995	1264	344	Skin	3052	1285	348
Depth	89	71	33	Depth	90	72	33
August 8, 1972				August 9, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	3321	1356	356	Skin	3416	1370	357
Depth	90	72	33	Depth	90	72	33
August 10, 1972				August 11, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	3421	1371	357	Skin	3765	1388	358
Depth	90	72	33	Depth	90	72	33

Had the astro-nots been in the command capsule in space during this 10-day period, their skin would have absorbed 2,780 rem. Their whole body radiation would have amounted to 263 rem. This is arrived at by simple addition of the numbers in the chart. McKinnon on page 14 somehow claims that they would have had only 33.9 rem. Their skin would have taken 358 rems but according to the information Mr. McKinnon was given this too would have presented no problem. He has this to say about skin dosage, "Acute dose to skin of 1000 rems produces itching and reddening." ¹³ Then he adds to this statement, "3000 rems to epidermis is sufficient to cause severe radiation burns requiring skin grafts." ¹⁴

Forgive me, but something is very wrong here. Mauldin needs 2 meters (6 feet) of shielding, but NASA tells you that the walls of the space craft block most of the radiation. Frankly, I don't believe that the tissue paper thin walls (so to speak) of either the LEM or command capsule provide the protection that is reflected in McKinnon's tables. I don't believe his "Whole Body Radiation Chart". The chart must be from the AEC (Atomic Energy Commission), but the data on the radiation shielding is from NASA, and both of these agencies are two of the most untruthful and ax-grinding bureaucracies in existence.

I knew that somewhere I had read that 170 rems is dangerous and almost guarantees a cancerous future. I searched and searched and finally found the source. Much to my surprise it wasn't 170 rems but 170 millirads. which is equal to 170 millirems. This dosage is one thousandth of 170 rems. ¹⁵

No wonder the SST aborts its flight plan at 100 millirems. McKinnon's chart shows the lowest category to be 0 to 60,000 millirems (60 rem), and claims it is harmless. And the other chart now shows that on August 4, 1972 a man in a space capsule would have had 32,000 millirems (32 rems) of exposure.

During the Gemini 10 mission, when Collins didn't walk in space (or else why did NASA doctor the pictures?), he reported that he received .78 rads during the first 24 hours in space. He called this an insignificant dose. ¹⁶ NASA reported no major flares so I must assume that there were none, but that was for less than an hour outside the ship. All the Gemini missions stayed beneath the Van Allen shield and also spent half their time in the Earth's shadow. Still they received the 'insignificant' dose of 780 millirems. That's almost eight times as much as it takes to send an SST streaking for cover. One wonders what daily dosage would be received by astronauts if they were really on their way to the Moon?

Mauldin tells us that, "The permitted dose for people is about 0.5 rem/year,..." And he also states that, "The average cosmic radiation in local space is about 10 rem/year.. ." ¹⁷ This is exactly twenty times higher than we normally receive from our environment. I must assume from all the recent reports that even this low a dosage may lead to a cancerous future.

Collins reported, "As a bonus, Orbiter confirmed that radiation levels near the moon were low . . ." ¹⁸ Again, I wonder! How could the radiation levels near the Moon be any different than the rest of near space? In fact, since all the Moon trips were allegedly made during the New Moon, the radiation levels should have been higher, since the Moon is closer to the Sun during that period.

Now for two relevant questions. Why haven't some of the astro-nots been stricken with cancer and leukemia, like people who were near Chernobyl? Mr. McKinnon, why has it been harder than pulling a gorilla's tooth to get the solar data I requested; particularly if even a series of giant flares cannot harm our astro-nots as you wrote in your TECHNICAL MEMORANDUM?

But wouldn't you know it? I later discovered that another big flare started on April 17, 1972 when Apollo 16 was only one day out from Earth on the way to the Moon.¹⁹ Astro-nots Young, Mattingly and Duke should have been fried, but, of course, they weren't. In addition to this, the two that landed on the Moon spent over 20 hours outside the LEM in the searing sunlight and radiation from residual flares. NASA never told us about that one either. I wonder how many more solar flares there were while other missions were allegedly in space?

Beginning in 1994 I wrote to McKinnon again and bluntly demanded the real solar data on every day that the Apollo missions were in space. This time Mr. Ed Erwin, another NOAA employee replied and his letter explained that the original data I was sent was optical data, hence did not contain the X-ray data. I had specifically asked for the X-ray data. He promised to send me the data and he did, but wouldn't you know, a funny thing happened on the way to my door.

Some mail person diagonally bent in half the large envelope near one of its corners. This was ostensibly done to stuff it through the mail slot even though it had "DO NOT BEND" stamped all over it. The final irony was that Murphey's Law struck again. The bend was made across the center of the hard-cased 3.5 inch floppy disk it contained. It takes real determination to bend a 3.5 inch disk and crack the shell. Equally determined, I was able to press it flat. To my amazement my computer was able to read the files it contained.

The Post Office (privatized in the '70s) has done more damage to me than any other government entity. I found out years later that while I was in Florida, because I tried to use book rates, they never delivered half of the 100 science books I mailed out for review. That is why I use PriorityMail today. * They have even soaked two of my NASA books in a basin of water. Over the years many NASA books haven't been delivered. Recently, a check was stolen and the case of a video being sent to me was crushed. I finally threatened to sue them as a private corporation. I told them that my first interrogatory would demand to know the actual owners. Most of my mail gets through now. But what else can you expect from an entity that is now owned by our old friends the International Bankers?

The disk only contained columns of numbers without column headers. Do you think that this might be just another example of bureaucratic obfuscation? To this day I have never received the data in useable form. What they have done is to express the particle strength as a matter of momentum. My question now is "How much deadly radiation will you receive if you are struck by a one ton asteroid traveling at 60,000 mph?"

Reading that disk caused a funny thing to happen to the files for this book. My computer developed a disease that wrote DOS into all files that had the word NASA in them. It

* I have stopped using Priority. Now I insure it and hope they lose it!

cost four days of effort, but I was able to rebuild them. We scanned for viruses without success, but it seems strange that out of 40 megabytes on my disk only the 800,000 bytes concerning this book were scrambled. I will always suspect that they were singled out intentionally. DOS only writes once when you install it. After 16 months of backing and forthing over the X-ray data I am beginning to get the feeling that the government is a more clever devil than I am.

I found a technical book entitled *Astronautical Engineering and Science* published by McGraw-Hill in 1963. It was a tribute to Wernher von Braun and written in sections by many of the original NASA experts. This book is divided into four subject areas and each area is then subdivided into various topics.

The one of interest here is entitled "Problems in Radiation Shielding of Space Vehicles" co-authored by Keller, Shelton, Burrell and Downey, four NASA experts. On page 244 they describe the problem, "Space explorers will be concerned with great radiation belts upon leaving the Earth, with the background of cosmic radiation that pervades all space, with the violent particle radiation storms associated with solar activity, and with the radiation belts around planets to be visited."

On page 253, a chart lists the shielding effects from various materials. I was surprised to see that water is one of the more effective shields. The chart shows the various amounts of material necessary to stop the primary protons at their different energy levels. Their chart shows that stopping a 10 MEV (million electron volts) particle requires 10 cm of water, for a 25 MEV particle you need 25 cm of water, and a 50 MEV event seems to call for 90 cm. The first two are not very energetic particles because the Sun emits particles of several BEV (billion electron volts). By contrast, a working atomic reactor emits particles in the 18 MEV range.

On page 256 of *Astronautical Engineering and Science*, there is a chart that shows the dosage of four different flares. On August 22, 1958 there was a low energy flare that could have been reduced to 25 rem per hour with 2 cm of water shielding. On May 10, 1960 there was high flux, low energy flare that would have needed over 36 cm of water to reduce it to 25 rem per hour. There was an intermediate energy flare on November 12, 1960 and it would have required 18 cm of shielding to reduce it to the 25 rem per hour. A high energy event happened on February 23, 1956 which would have required over 35 cm (12-inches) of shielding water to bring it down to 25 rem per hour.

When the Apollo capsule's internal pressure rose to 29 psi (14 psi over atmospheric) during the Grissom-Chaffee-White fire, it ruptured. The walls were too thin to withstand the 14.7 psi required to hold a normal atmosphere and therefore, couldn't have been much thicker than the LEM's hull walls. In fact, even if the command capsules walls were .01 inches thick they would have been 10 times the thickness of the LEM's and still, they would be 50 times thinner than the one centimeter hull used in the above charts.

Even if the flares, which took place during the Apollo 14 & 16 missions, were only of intermediate intensity, the astro-nots should have been doused with 70,000 rem. The actual hull was only a little over one thousandth of an inch thick. So what stopped the radiation? The suit material?

To sum up we have McKinnon, the governments own expert, telling us: "A probability of 10-20% should be considered a low probability for class M events, ..." Only a large flare can be a class M which a medium X-ray emitter event. He also says that at least 1 % will be the deadliest of solar storms, Class X.²⁰

In the first chart in this chapter, on page 126, there is complete list of the flares for 25 years. The total number of flares for the period is 134,793. This averages out to 5,391 flares per year or 14.76 per day. The Apollo astro-nots spent a total of 85 days in space. Thus during that period of time the average number of flares that could be expected was 1254. If we use chart number 2, which contains the monthly totals for these same periods of time, we find the total to be 1485 flares. This increase is expected because the trips took place at the high end of that solar cycle.

To send all these missions to the Moon without reporting severe radiation problems, NASA is effectively telling us is that not one flare emitted heavy X-Rays or protons during this time period. But McKinnon's probability of 1 % would mean, at least, 13 super deadly flares of X rated capacity or over one per mission. In addition they should have been exposed to 268 M class (medium) flares which is 1/5 of the total number. M class flares are also deadly without the 2 meters of shielding. Referring again to the chart on p. 256 of Astronautical Engineering... we see that any hull of one cm thickness would have allowed 70,000 rem for each intermediate flare into the module and many times more from an X-rated flare.

Mauldin states: "Cosmic particles are dangerous, come from all sides, and require at least 2 meters of solid shielding around all living organisms." "Solar (or star) flares of protons, an occasional and severe hazard on the way out of and into planetary systems, can give doses of hundreds to thousands of rem over a few hours at the distance of Earth. Such doses are fatal and millions of times greater than the permitted dose. Death is likely after 500 rems in any short time, . . . " ²¹

Since the whole capsule was only 13 feet in diameter, 2 meters (6 feet) of hull on each side would have left a space in the center about 1 foot in diameter. Therefore all 27 of the astro-nots who went to the Moon should be dead from radiation. Yet, all lived to tell the tale. Were they protected by miracles?

I also find it very suspicious that Aldrin spoke of space radiation only once in his last book. He is refering to the Gemini 3 mission, well under the Van Allan shield, when he writes, "As the crew began testing the effects of weightlessness and radiation on biological samples, ..." ²²

There's one more interesting tidbit that I ran across. Just before re-entry, the standard procedure on all the Apollo missions was to send the service module on a trip toward the Sun. Mr. Hurt summarized it this way, "... Mission control reprogrammed the rocket's remains to veer away from the Moon and enter solar orbit to be burned up by the heat of the sun." ²³

At first I believed that this statement meant that the module was sent into the Sun. Before one can send a module into the Sun (literally by braking the rocket so that it slows down enough to fall into the Sun) you must know its current attitude and the direction of its

axis. How did they know this after uncoupling? Did the service module have its own Inertial Measuring Unit? Its own computer? And where did all that extra fuel come from? Did NASA really aim a metallic shell about whose atoms we know little, into a Sun about which we know less, to produce an effect about which we know nothing?

The previous statement was a paraphrase of a statement Voltaire made in speaking about doctors. "We put drugs about which we know little, into bodies about which we know less, to cure diseases about which we know nothing."

Some heterodox scientists believe that some solar flares are triggered by meteorites that crash into the Sun. If this is true, would a small metallic shell mass be enough to cause the Sun to burp? There's an even worse possibility. Could the spectacular solar storms of August 1972 have been generated by a service module of a previous mission hitting the Sun? It's more likely to have been sent into a solar orbit — part of the accumulating space debris that NASA now admits is an increasing problem. However, if this was the case, how could Skylab's heat build-up have been a surprise? Does this mean that one branch of "Never A Straight Answer" doesn't even tell its other branches the truth? Hell, do any of our bureaucracies even know the truth any more?

ADDENDUM

Regarding damage to living things we find the following passage in Mallan's book. "But on much longer, later flights in earth-orbiting satellites, bacteria, seedlings, and insects showed remarkable changes caused by radiation strikes in combination with weightlessness."²⁴ He goes on to describe some of the mutations but swallows NASA's explanation that these effects don't count because the insects have much shorter life spans than people. If this was true how can they explain the incredible capacity of the cockroach to absorb radiation? All of these flights stayed well below the Van Allen shield. This book was published in 1971 when there were still a couple of Apollo missions left to do. Why wasn't this ever spoken of in the popular press or on TV. When did these findings change? How could lack of gravity affect the genes of bacteria, seedlings and insects?

When Mallan speaks of longer flights they are all less than a week in duration. What happened to all the humans who orbited for much longer periods of time? Many of them were still young enough to have had kids. Did NASA intentionally release more genetic time bombs into the gene pool? What amounts of radiation are the shuttle people absorbing.?

A dosimeter is worn by every astro-not and I have never seen any data about the absorbed REM from even the shuttle people, let alone the Apollo astro-nots, who didn't have the protection provided by the Van Allen shield. I now know that on very high altitude flights aircraft skins accumulate radioactive particles which are dangerous to those who contact them. What dosage is on the shuttle skin? Do we ever hear anything about that?

1. p. 1, NOAA TECHNICAL MEMORANDUM ERL-22, "McKinnon", Dec, 1972, Dep. of Commerce
2. p. 28, Ibid.
3. p. 28, Ibid.
4. p. 51, Ibid.
5. p. 29, Ibid.
6. p. 29, Ibid.
7. p. 6, Ibid.
8. p. 155, WE REACH THE MOON, "Wilford", 1969, The New York Times
9. p. 225, PROSPECTS EOR INTERSTELLAR TRAVEL, "Mauldin", 1992, American Astronautical Society
10. p. 229, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.
11. p. 15, NOAA TECHNICAL MEMORANDUM ERL -22, "McKinnon", Dec, 1972, Dep. of Commerce
12. p. 17, Ibid.
13. p. 8, Ibid.
14. p. 10, Ibid.
15. p. 126, POISONED POWER, "Gofman" & Tamplin, 1971, Rodale
16. p. 99, LIFTOFF, "Collins", 1988, Grove Press
17. p. 225, PROSPECTS FOR INTERSTELLAR TRAVEL, "Mauldin", 1992, American Astronautical Society
18. p. 118, LIFTOF, "Collins", 1988, Grove Press
19. p. 51, ON THE MOON WITH APOLLO 1, "Simmons", Dec, 1972, Dep. of Commerce
20. p. 29, NOAA TECHNICAL MEMORANDUM ERL -22, "McKinnon", Dec, 1972, Dep. of Commerce
21. p. 225, PROSPECTS FOR INTERSTELLAR TRAVEL", "Mauldin", 1992, American Astronautical Society
22. p. 126, MEN FROM EARTH, "Aldrin" & McConnell, 1989, Bantam
23. p. 74, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
24. p. 172, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.

BY INVITATION ONLY

Shortly after I started writing this book, NASA sent me, believe it or not, a special invitation to attend one of a series of six national "town meetings" scheduled over the course of six weeks. I drooled at the opportunity to ask a few direct questions. However, whether by plan or accident, that invitation was a day late and a dollar short as the old bromide goes. I received it at my home in New Jersey on November 23, 1992.

The "town meetings" were scheduled to be held on the following dates:

Raleigh, NC	November 09	Hartford, CT	November 17
Indianapolis, IN	November 20	Carson, CA	December 03
Tampa, FL	December 11	Seattle, WA	December 16

Unfortunately NASA used my previous address in Florida. Forwarding the letter by the post office as shown by the date on the forwarding stamp, took an extra 2 days. The letter was first postmarked on November 17th. That date precluded my attending both the Raleigh or the relatively close Hartford "town meetings." Since I wasn't about to fly to Tampa (on Florida's west coast) for a NASA "town meeting", I missed the opportunity of causing them an anxiety attack.

Then, I glanced at the date of their letter and really got angry! The letter was dated October 13th! I responded with a letter to Goldin, NASA administrator, complaining about the fact that their invitation lay buried somewhere for 36 days. What I asked for (sort of a consolation prize) was a copy of the picture found on the cover of this book. In due time I received a reply from Douglas Isbell, who sort of apologized, but complained about some of my language. I had dared to call the jerk who failed to mail the letter for 36 days a "lazy person". Isbell never did send me the picture.

If my invitation was typical, then NASA stacked their "town meeting" by inviting only those who they felt were NASA believers and sympathizers. However, on May 27, 1993, I did receive a full size, 64-page NASA brochure titled " 1992 TOWN MEETINGS" and sub-titled "Toward a Shared Vision." These "town meetings" were created to share NASA's public relations' pipe dreams with the people.

The pamphlet showed that the meetings were more on the order of propaganda conventions than "town meetings". I say this because of the preponderance of highly favorable quotations from participants scattered liberally throughout the booklet. The first thing we find is a message from Daniel S. Goldin, NASA's administrator, to the effect that the meetings were a "resounding success." ¹

A few pages later, is a statement to the effect that once again the tail has wagged the NASA dog. ²

"Goldin ended his talk by outlining the underlying rationale for the NASA vision that has emerged from the Agency's employees. This rationale has four major themes:

"NASA exists to inspire people and serve as a source of intellectual nourishment. From a practical standpoint, NASA and its programs are an ideal vehicle to enliven education. From a more philosophical standpoint, the desire to explore and conquer the unknown appeals to a basic component of human nature.

NASA exists to provide hope that the future will be better than the past. A hope that our children and grandchildren will enjoy good health, a clean environment and a prosperous society.

NASA exists to create economic opportunity, because technological advances are a key way to create new products, new industries and new jobs. And this opportunity should exist for all people, from all cultural and ethnic backgrounds.

And finally, NASA exists to serve as a catalyst for peace in the post-Cold War world."

Following the information was that NASA had its very own cable TV station called NASA Select.³ They also put out recorded radio broadcasts. I also received a total shock when the results of their propaganda convention revealed that although NASA was wonderful, the hand-picked attendees biggest criticism was that NASA is not quite bold enough. They wanted more Apollo-type missions! An overview followed praising the positive results of the "town meetings", accompanied by a NASA promise to do even more with our money in the future.

Then I discovered a strange piece of information which declared that NASA plans to review its patents and licensing procedures.⁴ The idea of our own government's bureaucracy spending our tax money to develop something, but then withholding it from us by license and patent, is totally obscene. Patents were intended to help individual inventors profit from their creations, not to give governmental monopolies.

The brochure then went on with a synopsis of each of the meetings. And guess what? Buzz Aldrin himself made a public appearance and questioned the NASA panel. The question that comes immediately to mind is, "Why wasn't he on the panel where he could be questioned?" Maybe his questions were pre-arranged "soft balls".

Parenthetically, there are 27 pictures in that book and the administrator is on ten of them. Not being familiar with corporate blurb, I can't tell whether this is just 'par for the course' or simply because he's so photogenic.

Surprisingly there was not a word about Moon bases or Mars missions. Just a lot of politically correct social statements. The last time NASA ripped us off they told us they were the "Space Agency". Now they are social workers. Looking back at their "rationale" printed above, those paragraphs are hardly the reason for being an agency, presumably on the cutting edge. Also, when the administrator speaks of the "Agency's employees" does he maybe mean the CIA, which is often referred to as "THE AGENCY"? I personally believe that administrator Goldin, or any other NASA pooh-bah who is so interested in things social, should be transferred to a job running the welfare bureau.

However, to give the NASA devils their due, they actually did print a few of the adverse comments made. Someone complained that exploring space should be delayed because

there are so many social problems at home. Goldin responded, that he was sympathetic to such feelings, but concerned that they ignore the importance of NASA's role in creating "opportunity for the future. Imagine that. He forgot to mention a well known previous agenda: a "Man on Mars" at a projected cost of around a trillion dollars.

Consider, just by reducing our federal taxes, the amount of the current NASA budget of 14 billion would be a great start at healing many of our social problems. I speak of building more prisons, reducing the homeless, etc. Economic slavery and social problems are almost synonymous.

Now that I have been educated by my readers I see that half the people in prison are there for taking drugs and are serving mandatory sentences. Many real criminals are walking free because they became "snitches" for the power structure.

Another person questioned whether NASA was beginning to sound like Star Trek? Never mind that the production techniques were similar, at least Star Trek was entertaining, and didn't cost us forty billion bucks.

A civilian scientist complained that a new space station would be too costly for the science it could accomplish. I strongly doubt that the sauna called Skylab accomplished anything. If the Russians have told the truth, their MIR ships have a lot of experience at living in space and should probably be duplicated. Fortunately, Congress killed the space station in November 1993.

In large print filling the entire inner margin of "the invitation" is a comment complaining about NASA's attempt to become another social service bureaucracy. Also, one engineer displayed a carabiner clip for climbing, he bought at a sporting goods store for \$20. He complained that the same clip costs NASA \$1000. The administrator ignored this question, of course. This engineer apparently didn't understand that this is the method by which secret funds are accumulated. This purchase would bring back about \$900 in cash to be spent on secret budgets or to be pilfered.

Another man called the space station a dud, and another predicted that it would take over one hundred years before a space colony could survive. A woman, trapped in poverty, rightfully complained that the space program is not real to the homeless and other low income people. But, hey, it wasn't "real" to Buzz Aldrin either.

Found on the inner margin of another page is the surprising, but anonymous quote, "The many self-serving statements regarding NASA's mission and achievements serve to highlight my misgivings about the status of the agency. In particular, flights of fancy regarding resources and benefits that might accrue from human, Mars, moon and asteroid exploration are not founded in science." Reprinting such comments, by NASA, may make them seem open and above board. But beware, their Mars agenda is still paramount.

Similarly, a large print, top to bottom inner margin, comment made by another detractor said, "As long as there are so many Americans who can't afford health insurance, who don't have a home, who don't have sufficient [food] to eat, I think sinking money in NASA is a crime against this nation."

I'll second that! Especially since the original forty billion bucks spent during the 1960's never got us to the Moon, or even out into real space. I wonder what all those critics will say about NASA after they read and understand the information in this book? Will we stand idly by while NASA "goes" to Mars? Of course, we need another federal social agency like another hole in our heads!

There is a federal law that explicitly prohibits the use of funds appropriated by Congress for the purposes of lobbying. It is found in Sec. 1913, Title 18, U.S.C. But if the government book, *America At The Threshold* is not lobbying, what is it? If these, by invitation only TOWN MEETINGS weren't lobbying, what is? Is that cable TV station they own authorized by legal exception? And the radio broadcasts? And if the NASA info-mercials propagandizing their new "Martian Adventure" that are frequently being broadcast on TV isn't lobbying, what the Hell is it?

The entire upper echelon of NASA should be indicted under law, and many other laws too. I hope this book sparks a Congressional investigation into all the suspected fraud, theft, arson and murder!

Note: The only thing this book sparked was a budget reduction to almost zero in May '95. That was accomplished by mailing copies to any Congressman that seemed rebellious. As I write these words, NASA has been stone broke for over a year and nothing has changed. It did prove that the private owners of the FED are supplying immense funds to NASA. That also explains the source of the CIA's funding all these years and why the CIA is their private tool.

1. p. 5, 1992 TOWN MEETING, "NASA", 1992, NASA
2. p. 9, Ibid.
3. P. 15, Ibid.
4. p. 24, Ibid.

GOTCHAS!

On Sunday, July 24, 1993 — the anniversary of the safe return of our Apollo 11 "First Men on the Moon" intrepid astro-nots — this manuscript was complete, awaiting only make up and review of the galleys. I awoke, as usual, with the first light of dawn and a distinct feeling that something needed doing besides the obligatory bathroom visit. I obliged the bathroom but couldn't go back to bed where I felt I really belonged. Something was nagging my mind.

I staggered to my meager collection (four books) on space flight fairy tales and methodically poked through them in an aimless fashion. I was trying to find out why my hunch button was zinging since I hadn't even looked at any of them for over a year. The last one to be finger flicked was a coffee table book called FOOTPRINTS ON THE MOON published by the Associated Press in 1969. It has 200 large size, glossy pages, uses extra large type and is a typical coffee table book containing seads of full color pictures.

When I reached the end of this book, I began another flick-through. When, nothing happened, I skimmed through it again. Then I finally recognized what I had been searching for. That search triggered all the "Gotchas" in this section added after the first printing.

GOTCHA # 1

On page 192 of FOOTPRINTS is an official NASA photo of the "Flag Salute Ceremony" being executed on the Moon during the Apollo 11 mission. Armstrong and Aldrin surrounded the flag as the light from the low altitude Sun cast long shadows of each of them.

The picture printed here is reduced in size, and in black and white, because neither size nor color is germane to this "Gotcha". I didn't even try to get a duplicate of this picture from NASA. The three pictures I had previously ordered took about eighteen months and countless phone calls before they were delivered. When I received them, only one of the pictures was what I ordered. They sent two substitutes I didn't want or need.

Before continuing with the analysis of this picture let's remember some background. It was decided that the Apollo 11 LEM, the "Eagle", should have optimum lighting conditions for the first lunar landing. Collins describes NASA's choice of the Sun angle for viewing the ground during landing. "If too high, i.e. overhead, the craters and boulders would not cast shadows, and depth perception and obstacle avoidance would be a real problem. Too high also meant the surface would be too hot. Too low, and the shadows could get so elongated that they would obscure other useful details and again make a visibility problem for the crew. A sun angle of about 10 degrees was deemed perfect" ¹ Then Collins spent a few pages describing the cause of the Moon's phases (waxing and waning), and how they determined the neccessary time of departure from Earth in order to land at the chosen site so that the Sun would be ten degrees above the horizon.

The Eagle landed at 4:18 EDT. ² A short time later the Eagle, now calling itself "Tranquility Base", transmitted the following: "I'd say the color of the local surface is very

comparable to that we abserved [their typo] from orbit at this sun angle —about 10 degrees ..."³

So, here is the picture that revealed its hidden treasure on the silver anniversary of the Apollo 11's return to Earth. A blurb next to the photo tells us that Armstrong is holding the staff and that Aldrin is holding the flag. If their actual heights were accurately reflected by the lengths of their respective shadows, then side by side they would have resembled the old cartoon characters — Mut & Jeff.



The first discrepancy is immediately apparent. Two men of nearly equal height have cast shadows of very unequal length. Not only that, but, once again, shadows which should be parallel, converged. The following measurements were taken from the reproduction printed in FOOTPRINTS, using a dial vernier caliper calibrated in inches.

	Astro-not	Height (in)	Shadow length (in)
Armstrong	2.140		3.065
Aldrin	2.200		4.440

Aldrin's shadow is 45 percent longer than Armstrong's shadow. There is obviously something very wrong with this picture. At first glance it seems to require two different sources of light. Willis Carto of the national weekly newspaper "The Spotlight" soon ended that thought. He called it nonsense, and it was! The only possibilities left are it is a composite picture; the shadows have been painted in or it represents a sample of early computer graphics.

And even if there are two Suns, in the Moon's sky neither one is anywhere near the 10° altitude NASA babbled about. A little plane trigonometry reveals that Aldrin's personal source of illumination is at 26.4° altitude,⁴ but Armstrong's shadow-casting light has outraced Aldrin's, and is at 34.9° of altitude.⁵

The EVA took place about 7 hours after landing. Since a lunar day is 30 Earth days long the Sun moves through the lunar sky only 12° in 24 hours. Seven hours would equal about 3.5° which would place the Sun about 13.5° off the horizon during their famous space walk.

At that altitude the shadows would have been a little over 9 inches long in the original photo. This is over twice as long as the longest shadow shown in the picture.⁶ No single source of light can create unequal shadows from men who are nearly equal in height. And, as Mr. Carto also pointed out, where is the flag's shadow which should have neatly bisected Armstrong? Gotcha NASA!

NASA apologists have explained the longer shadow by proudly announcing that the flag's shadow has added to the length. If that were true then the angle from the tip of the flag to that end of Aldrin's shadow should be the same as the angle between Armstrong's backpack and the top of his shadow. Using the flag pole to establish vertical, Armstrong's shadow shows the Sun to be 5° above the horizon while the flag's shadow shows it to be almost 20° . No matter how you look at it, this picture was FAKED!

GOTCHA #2

Recently, while reading Aldrin's *MEN FROM EARTH*, I found this NASA policy statement. Aldrin is quoted here reminiscing about his Gemini 12 spacewalk when he happened to glance up and see something twinkling. "Stars in the daylight?" I asked aloud.⁷ 'I don't think so.' On the early Mercury flights, NASA scientists had predicted the astronauts would see stars in the daylight, but the astronauts, all jet pilots with high altitude experience, had been skeptical. Soon they figured out that you saw stars in orbit only when you were in Earth's shadow: night."⁷

After waxing poetic he then said that what twinkled was a plastic bag. The early rocket plane pilots saw stars in the daytime. Subsequently, however, on each Apollo flight NASA tells us that they navigated using the "dim and fuzzy" stars. Well, since they were not in the shadow of the Earth where did — all of a sudden — these dim and fuzzy stars come from? Since these statements are diametrically opposed, one or both must be a lie! What is the truth and where does the truth lie and why did they bother to lie?

Repeating my statement from "Star light — Star bright," I believe that the brighter stars are visible to the naked eye in the daytime, from mine entrances, deep wells, and through a long black tube — if you know exactly where to look.

The truth could be easily determined by a ride on the next shuttle. However, since I couldn't, wouldn't dare ask NASA for that ride, I thought up a simple experiment. What I needed was an astronomer with a small "backyard" telescope equipped with clockwork tracking device. This is a motorized clockwork unit that compensates for the Earth's rota-

tion and keeps the scope precisely and automatically on a target.

If one centers a bright star that is low in the east at midnight, when daylight breaks the scope would still be pointed at the target, provided the tracking device was working properly. At that time one would either see the star or not.

Before I could make any arrangements for this experiment the "SAT & TELESCOPE" magazine came to my rescue. In the September 1994 issue on page 99 is a two page article entitled "How to See Stars in the Daytime". It goes on to say that only the bright stars and the planets are visible under 50-power magnification. This is not exactly naked eye visibility that I had heard about, but it does prove that here at the bottom of the murky, polluted, dusty, water laden fluorescent well we call the atmosphere, people can see stars in the daytime.

This question is for you, Buzz Aldrin. How could you, and every other astronaut not be able to see the stars in the daytime from a vantage point 160 miles above the Earth's surface, where the remaining atmosphere is so tenuous that it might just as well be the vacuum of space? Gotcha NASA!

GOTCHA # 3

On each of the 9 Apollo missions, which allegedly rounded the Moon, the command capsule and the service vehicle had to separate from the last stage of the Saturn booster's now dead carcass. This was accomplished by using explosive bolts and cable shears called "Pyros". After this separation, which was done as they neared the Moon, the command module would be turned around so that the command capsule could probe the LEM's drogue and connect up the access tunnel. Once attached the hatch covers on both LEM and command capsule could be removed, allowing free, if cramped access. Without any real practice, except in simulators, these men did this nine times in a row without a problem.

Which also means that nine (repeat 9) times in a row the vital, pyros must have worked flawlessly. If one exploding bolt "hung-fire" for even a millisecond, or if the exploding shear left even one wire not completely severed, the delayed and uneven force would induce a motion contrary to the rest of the impulses. The carcass would begin to rotate and by the time the command capsule reversed its attitude, linkup would no longer be possible. It would be like taking a flying probe at a rolling drogue. How could such perfection be possible nine times in a row? It wasn't! On Apollo 13 the blasts that separated the service module not only rocked the craft but caused a rippling movement.⁸

Remember the Apollo mini-disasters that I spoke of in "No Business Like Showbiz"? Here's one that Apollo 14 was supposed to have gone through. Stu Roosa had the Apollo capsule thrust its probe into the little LEM's drogue only to meet with total rejection. Over the next hour or so he backed off and tried again and again. But each time, his probe was refused entrance. He had only enough steam for one more attempt when Shepard told him, "This time, juice it!"⁹ On the sixth attempt he rammed it with all his might and the probe latched inside the drogue real tight.

Are we supposed to believe that on every attempt to drive that probe home longitudinal axes of both ship and carcass were dead in line? So matched that not one dyne of force was

transmitted off-center? Any off-center force would begin to rotate one or both vessels.

There may be some truth to the old saying that every dog has its day. I'm an old dog and Aldrin spit forth this gem while writing about the Apollo 9 mission. My comments are in normal type and parenthesis. "A couple of hours later they were feeling better and had separated the CSM (command module) from the S-IVB third stage (last stage of the Saturn booster). Scott then deployed his command module's docking probe and thrust the spacecraft neatly around to line up with the conical drogue that was nestled at the top of the lunar module (LEM). The latches all snapped properly into place. Just over three hours into the mission they were hard-docked with the LM. Dave Scott then backed the two docked spacecraft away from the third stage and thrust well clear of the slowly tumbling white booster." ¹⁰

Neither exploding bolts, nor cable shearing, nor the jets which moved the command module away, moved the booster. Yet, un-docking, which starts out in perfect alignment, can start the carcass slowly rotating or tumbling. A likely story! Gotcha NASA!

GOTCHA # 4

Remember the PLSS back-pack discussed in the section on the LEM's thermal problems? That entire discussion concerned the volume of water which was carried in the PLSS for cooling purposes. But the efficiency of the explosive freezing cooling unit became moot when I finally located a cutaway drawing of a PLSS. By taking the ratio of its known length and width, not only did I determine that the drawing was to scale, but I determined what the scale was. By that scale the water storage containers were 3 inches in diameter and 14 inches long. ¹¹ This gives a capacity of 100 cubic inches, .43 gallons, or 1.63 liters. Less than half a gallon of water would last about 27 minutes, on the Moon even at the mythical rate of 100 % efficiency. That's a big difference from the 4 hours PLSS capacity claimed by NASA. Does NASA have an unrevealed way of concentrating water? We keep hearing about space age benefits — but that one would be incredible. Gotcha, NASA!

GOTCHA # 5

Aldrin claimed that access to, and egress from the LEM's side hatch was done on hands and knees. ¹² Bill Kaysing claims that a friend of his who visited the space museum in Washington, DC a few years ago took a tape measure and succeeded in actually measuring the LEM's hatch as well as a space suit and back pack. He says that the hatch was simply too small to allow a man with a back-pack to pass through.

By scaling a picture of a 1/48 th scale model of a LEM, I determined that this side hatch (the one that leads to the ladder) was about 30 inches on each side. New information has it that it was 36 inches wide by 25 inches high. The young astro-nots had a ballooning pressurized suit to keep them from folding tightly at the waist, wherein I had my fat little belly accomplishing the same thing. It was a wash! Stripped to a pair of shorts I tried to use hands and knees to get under the edge of my kitchen table.

Since it has only 25 inches of clearance, in order to fit I had to go down to elbows and knees instead of hands and knees. But, if I add 10 inches for the thickness of the back pack,

The LEM's hatch would have to be a minimum of 35 inches high. NASA never mentioned that an astro-not would have had to wriggle on his belly, like a snake, to get through the hatch. How come? Gotcha, NASA!

GOTCHA # 6

The LEM consisted of an upper pressurized ascent unit whose function was to pilot the whole unit down to the moon using the large rocket motor in the lower unpressurized descent unit. To escape from the Moon, the upper ascent stage would then blast free from the lower part and ferry the Moon-walkers back to orbit to link with the command module. This ugly insect consisted of jutting angles and flat planes. Any first year structural engineering student would know enough to design a pressure vessel as a sphere, but the moron who designed the LEM didn't seem to know this.

So the NASA apologists can't claim that the LEM was not pressurized, we have this statement about the Apollo 11 LEM; "They worked their way to the ladder and squeezed into their "flight deck," and sealed and pressurized their cabin." ¹³

On page 160, of The Illustrated Encyclopedia of SPACE TECHNOLOGY there is a cut away drawing of the LEM. It has been drawn to scale and from that I determined that there was at least one large flat panel with dimensions of 3 feet across and 4 feet high. Another section of the drawing shows that the ribs are on 6 inch centers. I assume this section to be typical and that the rest of the LEM was ribbed the same way.

Aldrin speaks of the LEM's ribs thusly, "...and there were ominous corrosion cracks in the LM's paper-thin aluminum ribs." ¹⁴ A tissue paper thought here raises its thin head. Since the support ribs of vehicles, vessels and structures are always much thicker than their covering, you can imagine what the hull thickness must have been.

Continuing with the dissection at hand, I shall assume that the designers correctly put the ribs across the shortest span. The LEM was pressurized in space to 5.2 pounds. That's the minimal pressure needed to sustain life on a long term basis. Such being the case, and since there are 144 square inches to each square foot, the hull was under a load of 750 pounds per square foot. Compare this with 30 pounds per square foot allowed, and designed for on the floor of your home, or with the 200 lb/sq ft loading of commercial warehouses.

This simply means that each rib (6 inches on center) had to carry 1100 pounds. In structural engineering, loading is translated into a concept called the Maximum Bending Moment (MBM) which is measured in inch pounds. For a beam (rib) supported on both ends and carrying a load the formula is $W \times L / 8$, where W is the load in pounds and L is the span in inches. Therefore the Maximum Bending Moment for each rib is

$$1100 \times 36 / 8 \text{ or } 4,950\text{-inch pounds.}$$

The restraining moment needed to support this load is found by determining a thing called the Section Modulus (SM). This is found by dividing the MBM by the working tensile strength of the material involved. I don't know which particular aluminum alloy was used, nor do I figure I will live long enough for NASA to answer my letters, but since all aluminum alloys have less strength than steel, I shall pretend that the paper-thin ribs he

(Aldrin) spoke of were made of common steel which has a working tensile strength of 20,000 pounds per inch square.

The Section Modulus (SM) needed to hold this load is found by dividing the MBM by the tensile. Then $SM = MBM / 20,000$ or 4,950 divided by 20,000 which equals .2475. The proper size rib to do that particular job is 2 x 2 x 1/4 inch steel angle iron which has an SM of .25. Would you call a chunk of metal that is 1/4 inch thick paper-thin? Neither would Aldrin! Obviously, whatever ribs he was writing about would never, ever, hold the internal pressure necessary to keep men alive and breathing in space.

Just a few words now to put the icing on this particular "Gotcha". Seven paragraphs ago a direct quote was used to describe how "they repressurized their cabin." They went on to tell how they did this long checklist. Here's the very next paragraph: "They removed their boots, slipped out of the backpacks heavy with life-support equipment that had kept them alive on the moon, reopened the hatch, and dumped them along with crumpled food packages and filled urine bags onto the surface."¹⁵

Not a word about spending another two hours or so venting the LEM, or about hooking up air lines to stay alive once the hatch opened onto the vacuum of space. There was no airlock on any LEM! Gotcha , NASA!

GOTCHA # 7

I finally found out why the early NASA engineers and scientists who wrote Astronautical Engineering and Science in 1963 used 25 rem as a benchmark on their charts on hull thickness versus solar activity. I ran out of gas at my daughters house and while waiting for rescue I began to read some old "National Geographies" magazines. The May 1987 issue held a feature story by Mike Edwards entitled "Chernobyl - One Year After". On page 640 I found the following statement. "In general, 5 rem is considered acceptable for a nuclear-plant employee in a year, with 25 rem (the total countenanced for Chernobyl cleanup workers) an allowable once-in-a-lifetime dose."

The Apollo 16 mission spent 13 days out from under the Van Allan radiation shield. There had to be an average of 14.47 flares per day as found from the "Monthly Counts Of Solar Flares" chart. This is a total of 188-flares and for arguments sake we will stipulate that the better than 1 % of heavy flares didn't happen on this trip nor during the other 72 days that the other Apollo missions were mooning the Earth. I will even stipulate that their ship's hull and their suits were a centimeter thick. However, 20 % of these flares had to be of intermediate activity and each dosed the crew with 25 rem. This represents 37.6 flares which gives astro-nots John Young, Ken Mattingly and Charles Duke a grand total of 940 rem apiece.

Three astro-nots went to the moon twice and for the following calculations we shall only consider the intermediate flares. Astro-not Dick Lovell was allegedly present on Apollo 8 for 6 days and on Apollo 13 for 6 days. This 12 days of total exposure was 870 rem. Astro-not Gene Cernan supposedly was on Apollo 10 for 8 days and on Apollo 17 for 12 days for a total of 20 days. This amounts to total of 58 flares for a total dose of 1445 rem. However, astro-not John Young seemingly flew on Apollo 10 for 8 days and on Apollo 16 for 13 days, for a grand total of 21 days. This gives us 61 flares and 1525 rem exposure. At this

exposure they all should have died in space. These men are as radiation resistant as cockroaches. Gotcha NASA!

GOTCHA # 8

I saved this for last because it is the greatest "Gotcha" of them all. Please recall that I have sarcastically referred to the Apollo 13 explosion, and the other near disasters that NASA kept reporting in the chapter titled "No Business Like Showbiz". I have finally pinned the NASA Monarch butterfly to the board.

In the spring of 1970 our country was preoccupied with "policing" South Vietnam. Each night on TV the body count of the enemy was reported. This was presumably our scorecard the way we could determine whether we were winning. By the time our rear guard was being helicoptered from the roof of our embassy in Saigon the total body count had risen to include the entire population of both North and South Vietnam. Some of us thought we had been lied to about the numbers. Later we would find out that the count also included bodies from the CIA's secret war in Laos and Cambodia. How can there be a secret war without complete collusion of the news media?

There was also much domestic strife, including rioting on our college campuses. Poverty was proliferating as fast as the demonstrations. Even patriotic Americans were beginning to look at Moonwalkers and ask, "Who cares?" The ongoing space opry called the Apollo missions needed to be spiced up, say, with high drama, danger and suspense. So, enter the Apollo 13 mission with Dick Lovell, as mission commander; Jack Swigert as orbital housekeeper, and Fred Haise, who was going along just to gambol on the Moon with Lovell.

At this time I want to interject the sequences of a normal Apollo mission to and from the Moon.

1. Lift off followed by the ejection of the escape tower.
2. The booster's 1st stage shuts down, detaches, and the 2nd stage fires.
3. The 2nd stage shuts down, detaches, and the 3rd stage fires.
4. The 3rd stage shuts down when the craft is in Earth orbit.
5. The 3rd stage fires again to accelerate the craft toward the Moon.
6. The combined command module and the service vehicle, as a unit, detach from the third stage which holds the LEM in its top section.
7. The combined module then turns around and links nose to nose with the LEM.
8. The large engine in the service vehicle makes up to three, mid-course corrections.
9. The service engine fires again to slow the craft down to allow it to enter and maintain a lunar orbit.
10. The LEM detaches and uses its lower engine to land on the Moon.
11. The LEM's upper stage detaches, and carries the men back to the command capsule, leaving the lower stage on the Moon.
12. The upper stage is detached and abandoned in lunar orbit, and the service engine fires the linked craft toward Earth.
13. The service engine makes mid-course corrections, and then it too is detached from the command capsule just before re-entry.

However, in Apollo 13's dramatic plot, the service module is destroyed by exploding oxygen tanks on its third day out. Just for argument's sake we will assume that all the mid-course corrections had already been made by the service engine. Remember that all the lost oxygen was to be inhaled by the men, and slurped up by the fuel cells to provide electric power and water for drinking. Most importantly, it was necessary to remove heat from the craft by explosive freezing. Speaking of the service modules's engine, "They knew the powerful engine would no longer fire, starved as it was of the electrical energy needed for ignition and burn. Without it they couldn't get into orbit about the moon. More importantly, without it they wouldn't be able to get home." ¹⁶

The outcome of this tragedy was that not only would the mission objectives not be accomplished, but they were about to lose their lives deep in cold space, just before or immediately after their water and oxygen ran out.

To save themselves, the crew left their spacious 210 cubic foot mansion and had to move, bag and baggage, into the 160-cubic foot Mother Hubbard's shoebox called the LEM. The crew compartment dimensions of the LEM, as reported on pages 158-160 in the Space Technology Encyclopedia, was 7 ft 10 inches in diameter and 3.5 feet high. This is yet another dimension that doesn't fit NASA's story since we were always given the impression that the astronauts were standing as they came and went from the Moon's surface.

The information below was also gleaned from the same pages of Space Technology Encyclopedia.

Part	Weight (lb)	Fuel wt.(lb)	Thrust (lb)
1. Command capsule	13,090	?	?
2. Service vehicle	?	54,074	20,500
3. LEM	33,200	?	10,000

More information on the LEM comes from two other sources. First the weight of the LEM's fuel is derived from the following information: ¹⁷ The ascent stage weighed 10,600 lbs and the empty descent stage 4,800 lbs for a total weight of 15,400 lbs. Subtracting from the 33,200 lbs (total weight of the LEM) we find that their was 17,800 lbs of fuel on the lower stage of the LEM. That's about 9 tons.

The combined weight of the command module and service vehicle was 100,000 pounds. ¹⁸ Adding the 13,000 lbs of the command module to the 54,000 lbs of the fuel comes to 67,000 lbs. Subtracting that from the 100,000 lbs gives an empty service vehicle weight of 33,000 lbs. The weight of the attitude fuel was small and not needed for these calculations. Let's make two reasonable assumptions. The first is to assume that the service vehicle had expended some of its fuel on minor mid-course corrections. The second assumption is that the majority of the fuel left was needed to bring the command capsule back home.

Lovell is quoted by Hurt as saying, "We had to continue on with about 400,000 pounds(sic) of unburned fuel plus all the mass it had otherwise." ¹⁹ I strongly suspect Lovell was talking about 20 tons (40,000 pounds) of remaining fuel and accidentally added a zero. If that figure was correct then there is absolutely no way the thing could have gotten off the ground. Rounding the Moon is basically the same as rounding a corner in a car at

high speed. Just as you must apply the brakes while coming down a hill to round a sharp curve, the service engine must deaccelerate the space craft as they zipped down the Moon's gravity hill in order to make the turn around the Moon.

Well these men had "The Right Stuff, and had already begun to implement their sensible retreat to the LEM while mission control was still dithering and blathering."²⁰ Mission control finally agreed to allow them to use the LEM's decent engine to enter a lunar orbit and again to blast for Earth. This also meant that any necessary mid-course corrections would also depend solely on the LEM's 9 tons of fuel. Adding to the equation is the fact that, in addition to the 20 or so tons of unburned fuel in the service vehicle there would be an additional 15,400 pounds of LEM, plus its 9- tons of fuel plus 33,000 lbs for the service vehicle. That's over 100,000 pounds.

When the service engine performs the same job, Aldrin, says the lunar orbit burn takes 6 minutes.²¹ Then Aldrin reports that, to send the craft back to Earth, it took a 2.5 minute burn which consumed 5-tons of fuel.²² This is a rate of 2 tons per minute and indicates that the lunar orbit burn consumed 12 tons of fuel. Please bear in mind that the service engine has no throttle. It's either all on or all off. When operating, the engine consumes the maximum fuel per minute. This leaves us with the unalterable fact that 17 tons of fuel were needed to do the job, without any later mid-course corrections and without all that extra mass.

And naturally, because of all the extra mass, it would logically have required much more than 5 tons of fuel to accelerate up the Moon's gravity hill for the return to Earth. Still ... the LEM only had 9 tons of fuel.

They didn't even complete the first burn, yet, they were short 3 tons of fuel. NASA would later claim that, "On the first three lunar flights, Apollos 8, 10, and 11, the spacecraft had been programmed so that the final engine burn launched the ship into a "free return trajectory". Once the craft looped around the moon, it would be on the correct course for its return trip to earth. No additional engine firings would be required."²³ This is supposedly a trajectory that doesn't require any lunar deacceleration to round the Moon and return directly to Earth.

I am having a problem with NASA's analysis. To get to the Moon you must travel away from the Earth. If you skim by the Moon you are still going away from the Earth. If your velocity is high you will then go a damn long way past the Moon before you will lose all velocity and then be sucked back toward it. Falling back will take as long as going out did. Apollo 13 didn't spend any extra days in space so how the hell did they rub off all that velocity?

Harry Hurt, the author of FOR ALL MANKIND is a most meticulous researcher and the following was in his book which was published in 1988. "The first burn would sling

shot the spacecraft around the backside. The second and even more critical burn was the Trans-Earth Injection or TEI, which would blast the spacecraft toward home."

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This is directly contradicted by THE FLIGHT THAT FAILED by Cooper which was

written only about the Apollo 13 disaster. Cooper claims that the first burn after the explosion came after they rounded the Moon.²⁵

Without continuing to beat this dead NASA horse, I want to ask why the service vehicle was launched carrying 57,074 pounds of fuel if 9 tons could have done the entire job with the exception of some mid-course corrections? And, while it was pushing an extra 40 tons or so! At a lift ratio of 18 lbs of fuel needed to send 1 lb of container to the Moon, they could have reduced the weight of the entire launch vessel by over a million pounds on each mission. The press has an acronym for NASA which is "Never A Straight Answer". Do you wonder why?

GOTCHA, NASA!

1. p. 323, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
2. p. 205, FOOTPRINTS ON THE MOON, "Barbour", 1969, The Associated Press
3. p. 295, WE REACH THE MOON, "Wilford", 1969, Bantam
4. $\tan(A) = 2.20 / 4.44 = \tan(4.95) = 26.4$ degrees
5. $\tan(A) = 2.14 / 4.44 = \tan(6.98) = 34.9$ degrees
6. $\text{Lenght} = \text{Ht} / \tan(13.5 \text{ degrees})$
 $L = 2.2 \text{ inches} / .2400 = 9.16 \text{ inches}$
7. p. 156, MEN FROM EARTH, "Aldrin & McConnell", 1989, Bantam
8. p. 165, 13: The Flight That Failed, "Cooper", 1973, Dial Press
9. p. 289, MOON SHOT, "Shepard & Slayton", 1994, Turner Publications
10. p. 211, MEN FROM EARTH, "Aldrin & McConnell", 1989, Bantam
11. p. 161, The Illustrated Encyclopedia of SPACE TECHNOLOGY, "Gatland", 1981, Harmony Books
12. p. 240, MEN FROM EARTH, "Aldrin & McConnell", 1989, Bantam
13. p. 247, MOON SHOT, "Shepard & Slayton", 1994, Turner Publications
14. p. 178, MEN FROM EARTH, "Aldrin & McConnell", 1989, Bantam 15 p. 247, MOON SHOT, "Shepard & Slayton", 1994, Turner Publications
16. p. 261, Ibid.
17. p. 57, MOONGATE, "Brian", 1982, Future Science Research Publishing Co.
18. p. 157, THE VOYAGES OF APOLLO, "Lewis", 1974, Quadrangle
19. p. 208, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
20. p. 207, Ibid.
21. p. 233, MEN FROM EARTH, "Aldrin & McConnell", 1989, Bantam
22. p. 245, Ibid.
23. p. 263, MOON SHOT, "Shepard & Slayton", 1994, Turner Publications
24. p. 210, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
25. p. 69, 13: The Flight That Failed, "Cooper", 1973, Dial Press

THE CONCLUSION

I have waved red flags of facts in front of you, and I know it may cause some to seek reassurance from accepted establishment experts. Such folks, not really wanting to believe all this, will want to accept the reassuring pooh-pooh's and tut-tut's in place of hard facts, logic, photos and their own common sense. If there are more people who accept NASA's truths than those who can tweak their own EBS and face the real truth, our country will surely be destroyed. Today, it is already stressed out from too much debt, social division, lack of work (especially for our blue collar people), immigration, incredible taxes, and a failing infrastructure. Today, leaders slough off the debt burden and lay it on our children, and their simplistic solution is to raise taxes on a people already as highly taxed as any in history. Remember your true tax rate is not what government experts tell you it is, it is the number of days you must work each year to pay all your taxes, all your fines and all your licenses. That takes, at least, until August each year, although the Government admits to mid-May. That is an effective tax rate of over 60 %, and it's guaranteed to climb still higher.

For over fifty years our leaders have taken all the golden eggs that the American goose has produced, taking them as fast as they could be laid. Unfortunately they have wasted most of these resources by spending them on foreign adventures and misadventures. And naturally, when nefarious things are being done, some golden eggs will always slide sideways into private nests.

Now our fearless leaders are greedily grasping for the seeds of those eggs, long before they are ready to be laid. By these actions they are literally ripping the guts from the golden goose. Our national creditors will soon demand their money and I can't fault them for that! When you borrow, you owe! * When I wrote this in 1992, I was unaware that the FED was a private corporation.

When our venal leaders embarked on this path only an occasional lone voice bayed in dissent. The great majority of us unfortunately did nothing to stop them. If we continue to do nothing and let the government and its academic cohorts con us again we will merit the results and prove true the adage, "A people deserve the government they get." It's true that a democracy carries the seeds of its own destruction; but it also carries the seeds of its salvation. That's the point here. We must wake up to the facts presented here, and prevent them from happening again!

In this "free" country, with constitutional guarantees of "free" speech and press, between "SLAP" lawsuits (lawsuits simply to destroy), "political correctness" and all the other restrictions, there doesn't seem to be much freedom left anymore.

Is there anyone left who will cry out, "I completely disagree with what you are saying, but will fight to the death for your right to say it." Be careful America, for whatsoever you do to the least of your fellow citizens, so will eventually be done to you by governmental machine guns, bayonets and fire. Consider the recent wholesale roasting of men, women and children in Waco, Texas. Remember, they also burned the Patty Hearst's Symbionese Liberation Army in Los Angeles many years ago and an outfit

called MOVE (dissidents in Philadelphia). That's three for three. Dissidents beware — we can be burned alive. Then in Oklahoma City they claim an exterior explosion imploded reinforced concrete. And recently the World Trade Center was also imploded by a fires in steel buildings. The lies expand!

Today we are a country drowning in short-term debt. Some small portion of this is owed to other nationals like the Japanese and the Arabs. The largest (by far) percentage is owed to the Rothschilds and their cohorts, the Rockefellers, Warburgs, and Schiffs. When I wrote this book I knew not of the Rothschilds. Our economy is in chaos because greedy MBAs, chattering like insane monkeys about the bottom line, have shipped our manufacturing industries out of the country while our great pollution experts created ever more restrictive policies and higher fines for those industries that are left. What's even worse, they pointedly ignore the fact that our local, state and Federal governments pollute more than all the others put together.

In too many communities today only minimum-wage service jobs are left for blue collar workers, male or female. Many of our people cannot handle the servile attitude expected for most service jobs. This has left us with a decaying tax base: requiring ever increasing taxes from the only segments of our population who have ever paid real taxes, the poor and the middle class.

In addition, while the number of our homeless citizens and those in extreme need passes 5 million our social systems and our infrastructure has been overwhelmed by almost unrestricted, and largely secret, immigration from growing populations of third world countries. Too many of them are illiterate, ignorant, and fanatically religious. In the 1960 our leaders told us to cut our birth rate. And we did. But, to solve the overpopulation nightmares of other countries we have deliberately opened our gates. By some particularly twisted logic we now give aliens our Social Security and SSI Disability and they never paid a dime into our system. Thank you UN.

Since 1950, the bean counters at the census bureau have failed to reflect any of this. They have only counted white Americans (with any accuracy). The cause is partly stupidity and partly political correctness. This is an equation for disaster and day by day, our leaders trade off our Constitutional liberties for their own security. During the spring, summer and fall of 1994 our military was being trained for search and seizure (for the first time in our history). Huge civilian control concentration-type camps are also being created on military bases by FEMA (Federal Emergency Management Administration. Many of those FEMA camps have zero facilities; only razor wire and guard towers surrounding open fields. These are not concentration camps — they are death fields. Concentration camps have roads, barracks, commissaries, etc.

To top that off many of our troops are training under foreign officers and our officers are training foreign troops, all this while the UN is stockpiling tanks, trucks and armored cars around our country. If this is too much to believe read the back issues of the Washington, DC paper "The Spotlight". (This paper was finally sued out of existence!) It doesn't take a rocket scientist to see our nation is in a very precarious state.

When NASA raids our treasury again we will be forced to default on our debt and in that instant of default we will be reduced to peonage. America is the only altruistic

country in the history of man, but our generosity has laid us open to creditors who will take their pound of flesh. They will follow precedent and ask for territory to meet the unpaid interest. Remember, Russia sold Alaska to us and France sold the Louisiana Territory to us because they needed money. We will have to fight to keep our nation together.

When we had a nation filled with factories manned by skilled blue-collar labor; we had machine shops bulging with tooling and manned by skilled craftsmen. Next time we will have to depend on imports for our arms, munitions and supplies. Next time the tough slum kids, and the even more sturdy farm boys, will have to fight without superior arms and firepower because our imports will be under UN embargo and our major cities will be under martial law enforced by UN troops. This is about the best case scenario I can present. The others are even more horrific.

Then our creditors will have UN backing (they are the UN) as they partition our country! We will have blue-helmeted troops patrolling our streets and doing door to door roundups of the few arms that our government collectors have missed. If we lose, our United States will be forcefully partitioned into ten small countries. One of the "One World" think tanks and the secretive FEMA has us already divided us into ten "Federal" districts (countries) that bypass state lines. I believe we are in preparation for that day. Remember what happened to Russia in the very recent past.

Here's maybe an even worse scenario: next time our blue-collar men and women will repeat the common non-action of citizens of the Roman and Grecian empires which preceded ours. They no longer cared what happened to their government that had so abused them, and they stopped fighting for it. So while we still have the time, spread the word that, "A Funny Thing Happened On Our Way To The Moon" and that they intend to screw us again and again.

Until we truly solve the problems of creating powerful and efficient space engines, and engineer space ships that provide protection for our astronauts from deadly space radiation; and we build suits that will allow men to actually work in a vacuum, we surely can't go to the Moon. Let alone to Mars.

At the very start of the space debacle, an old warrior tried to warn us. Authors, Youg, Silcock & Dunn wrote this. "In Eisenhower's farewell address to the nation, the old soldier uttered a phrase which nothing in his eight White House years had caused the world to expect of him. For seemingly the first time he said something original, dramatic and durable. "In councils of government," he warned, "we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex." ¹

Ike neglected to mention the academic, legal and medical cohorts. As far back as 1969 these same three separate authors saw through some of NASA's sham and said so. For instance, of NASA's public relations department: "Its spokesmen are masters of the vocabulary of adventure and scientific discovery conducted for the benefit of all mankind. Ceaseless repetition has ensured for this unconvincing position a triumph over its essential unreality." ²

Unfortunately, all these three authors failed to see exactly how unreal everything was. In all fairness however, it should be noted that these authors were English and not as emotionally involved as we Americans. We were happily and faithfully accepting every word uttered by our big daddy in Washington. Me too, I was conned!

These authors continued their commendable dissection of our motives, "If space has produced an image of strength, Vietnam, assassination, ghetto violence and economic injustice have created one of uncertainty and social incompetence. In terms which men can understand as relating to their own lives, American capitalism of the sixties does not have an enviable record. It has created great wealth, and it has sent Americans to the Moon. But around the world, America is despised as much as she is feared, its citizens pitied at least as much as they are envied." ³

Again, they also compared the Apollo missions with other historical follies that had broken the backs of the cultures that produced them. "Other societies offer remote instances of massive resources spent on goods of vague utility: Egypt with its pyramids; medieval Europe with its cathedrals towering over the surrounding squalor; the palace of Versailles. But in truth, it is unique in history for a nation to invent and accept a challenge like Apollo, costing so much and promising few material rewards, and then to commit itself publicly to completing it in a time which made no allowance for failure. The moon landing demanded from America, her people and her institutions a combination of qualities never previously seen in the history of any nation." ⁴

Another writer, Harry Hurt, an American, speaking about the Apollo 8 mission said, "In essence, the mission was a grandiose public relations venture that promised no tangible scientific or technological rewards —" ⁵ The same could have been said about all of the Apollo missions.

To their credit, Young, Silcock & Dunn, questioned the sense of further flights even before Apollo 12 cleared its pad. "A decision to go further cannot be convincingly represented as a bid for immediate world prestige or identifiable scientific discovery. Apollo has shown that those objectives, although they be made to attract the support of the mass of men for the enterprise, are in fact chimerical. In sending men to Mars, it will be the act itself which counts, the great instinctual leap." ⁶

They continued, "Unadorned by reason or logic, it is the proposition which men must examine as they attempt to determine whether journeys beyond Tranquility are a necessary gratification of their primitive instincts, or an insane distraction from the real work of the world." ⁷

I can't even conceive of what they would have had to say, if they had known it was all showbiz and a supreme con job, similar to each of the historical works they named. At least those ancient con artisans built something that lasted, the Pyramids for instance. Our con artists gave us nothing but a snow job, a lot of debt, and a tiny boost to the already blossoming technology which we would have eventually achieved without the incredible expenditures by NASA.

Harry Hurt mistakenly pointed to the PC (personal computer) as a result of the Apollo Program. Nothing could be further from the truth. If that was the case why

didn't IBM invent it, particularly since IBM received hundreds of millions of dollars from the government? They were fabricated instead in a garage owned by a non-member of the establishment. The same inventive route applies to both DOS, the operating system, and the floppy drive!

This leads inexorably to a final question. Why didn't the astro-nots capture those dim, fuzzy, hard-to-see stars on film? Even back in the late '60s we had film that could record a flying owl as it snatched a mouse from a dark field at night. Couldn't NASA afford such "dim light" film? The astro-nots believed their own propaganda. Apparently they came to consider themselves "scientists", but if the stars in space really were 'dim and fuzzy', why didn't they recognize this as a great scientific discovery that it should have been?

Science is a quest for facts — and the dispelling of myths and false beliefs so that it can predict results. Since all astronomers, except maybe those that work for NASA, believe that the stars in space are always bright beyond our roiled and dirty atmosphere, and since most of us believe this to be true, why didn't they dispel this myth? Wouldn't that have been more scientific than collecting rocks and dirt?

Why did they need the Rover? Why? To help them collect 840 pounds of so-called lunar rocks. These rocks cost over 47 million dollars a pound! The excuse offered at the time, was that a few samples would tell us the history of the Moon, Earth and the universe. So they took four Rovers to the Moon. They cost about \$18 million each, but their weight is never spoken of. Why not? Would airplane and ship loaders wonder about balance? How do you load a heavy ungainly object off-center, as it had to be because of the central rocket engine, and not worry about balance? It is especially a problem on a ship whose center of gravity, once it enters a gravity field, is higher than the center of thrust.

Then there is the touted "Rock of Ages" sought after by the astro-nots who never went; and it was — never found! In 1974 there was a conference in Houston that author Lewis tells us about: "Of the 840 pounds of rocks and soil returned from the Moon by Apollo missions, only 5 percent or 42 pounds have been distributed to investigators in the United States at the time of the Fifth Lunar Science Conference. Only about half of that had been analyzed by that time." ⁸ It should come as no surprise that none of the rocks analyzed are any different than those found here on Earth.

Almost twenty years have ticked by, yet we have heard little more about the Moon rocks. The entire Apollo program had been touted as one great scientific adventure. Each mission had certain scientific goals and the astro-nots allegedly spent most of their time in attaining these goals. Hurt explains, "The ALSEP experiments which the Apollo astronauts deployed on the Moon, which transmitted raw data on such phenomena as "moonquakes," "solar winds," and cosmic radiation, had to be shut down in 1978 due to congressional budget cuts." ⁹ As far as cosmic and solar radiation is concerned, I feel that NASA caused NOAA (National Oceanic & Atmospheric Administration) to obscure what is already known. That is not science, that is power politics!

In the section entitled, "Mass Murder or Utter Stupidity", we printed the beginning of this next quote by Hurt. Here is the rest: "Although Project Apollo was one of the

most extensively documented undertakings in human history, many of the earth's five billion inhabitants still refuse to believe that twelve astronauts really did set foot on the Moon. Exactly how many people cling to this preposterous heresy is unknown because there has never been a world wide opinion poll on the subject. But just as the Flat Earth society in London continue to dispute evidence that the world is round, untold numbers of serious and not-so-serious disbelievers continue to insist that man's first lunar landings were actually a series of government-sponsored Hollywood hoaxes." ¹⁰

Mr. Hurt, I'm convinced all the documented films, sound tracks and rocks were simulated. On the same page as the above quote Hurt tells an anecdote about Julian Scheer. "Shortly after the Apollo 11 and Apollo 12 missions, NASA public affairs officer Julian Scheer mischievously fueled the flames of doubt at the tenth annual meeting of a drinking fraternity known as the Man Will Never Fly Memorial Society. Scheer delighted some two hundred admittedly inebriated members of the society by narrating a film of astronaut training exercises at a terrestrial "moonscape" in Michigan that bore an indistinguishable resemblance to the real lunar landscape.

The purpose of this film is to indicate that you really can fake things on the ground—almost to the point of deception, Scheer informed his audience, devilishly inviting them to 'come to your own decision about whether or not man actually did walk on the moon.'" ¹¹ Hurt called it 'mischief, but I see it in a different light. It was either an attack (or revelation) of honesty or an example of consummate arrogance. We probably will never know which.

I have not been able to find a single picture of a space-walking astro-not that didn't show deep wrinkling in the suit's fabric. Where are the bellows, the cables, the stiff tubes and the inner mesh that Collins bragged about? These pictures clearly demonstrate that a balloon effect is not present. This is powerful proof that we never walked on the Moon, or engaged in any such similar activity in space. Pressurized space suits must more closely resemble the Michelin-Man logo, or the balloons floated in the Macy's Thanksgiving Day Parade than any deliberate movement on the part of astro-nots. In addition, any such activity had better be done under the protective shadow of the Van Allen belt — like where the shuttles presently operate.

If this contention is not true, why did the Russians claim that they didn't know how to protect their cosmonauts from space radiation — while we seemed not to have any problems? According to the charts obtained from NOA A, even if our astro-nots were in space during the biggest solar storm of the century, they would have come to no harm. Why did NOAA send me optical data instead of the X-ray data I requested for the years that the Apollo missions were landing on the Moon? Since Apollo capsules didn't carry two meters of shielding mass, why did they suffer no effects from the average number of 274 class C flares and 13 class X flares that occurred while they were in space? We must assume that only godlike men with "The Right Stuff" can survive what would surely kill us lesser mortals.

So far as I can see we will be able to effectively walk in space only after we have created artificial exoskeletons, similar to the shells of crabs and insects. This will require reticulated and articulated suits, similar to those worn by deep sea divers working at extreme depths. The problem is we are stuck in a web of NASA lies. Until we expose

them with an airing of the truth we can make no real progress beyond near-Earth space. Remember that a point to point congruency was found between the Collins zero G airplane practice and his alleged Gemini 10 space walk. Why fake a picture, unless to deceive?

To make real progress in getting to the truth means putting the lie to older fictional achievements, and thus, running the risk of opening up a political and social pandora's box. But if, as citizens, we cannot force it open then we are both morally and financially bankrupt.

Indeed, something like a pandora's box already exists for space. Witness the Skylab fiasco which was the direct result of the lies told by NASA and the astro-nots during the so-called Apollo missions. The design engineers either ignored or completely underestimated the magnitude of solar heating in space due to the false concept space is cold.

NASA (twisters of the truth) admit to exterior Sun-side temperatures of 295° F and internal temperatures of 120° F. But I believe they lied again. I believe the internal temperatures were much higher — thus ruining the interior and partially destroying food supplies, equipment and furnishings. According to Collins over 1,000 packaged meals were stored before the launch.¹²

I sincerely doubt that a jury-rigged parasol installed by "Michelin Men" could do all that much to alleviate the problem. One thousand watts doesn't buy much air conditioning, even if you can keep ejecting water into space to cool the ship. I believe that the three Skylab missions, like the Apollo missions, were at least partially faked. However, unlike the Apollo landings which NASA knew in advance were impossible, I believe during Skylab they really tried, but you can't run a scientific project if the information you give out is false or non-existent.

For example, I remember NASA touting one student's experiment. It caught my attention because it involved flying a model airplane in the zero gravity environment inside of Skylab. Since the force diagram for flight has a gravity vector, the academics were betting the model couldn't fly. Only folks like me felt it would, and if we were right the academics would have to come up with new ways of looking at flight.

The day the experiment was supposed to be run I rushed home from work. I spent the next few hours simultaneously, listening to both radio and TV for information about that experiment, but heard nothing. I called my friends and they hadn't heard a thing either. The next day I read all of the area newspapers, yet saw nothing. I have never heard another word about that experiment since. So much for NASA's desire to communicate with us average citizens.

And yes, I did go through the exercise in futility, of writing to NASA and asking for an answer. I'm still waiting. But since its only been 20 years, I guess I'll still have to be patient and wait some more.

Examine again the pictures of Collins' so-called space-walk in the beginning section of this book. I loved his attitude when it came to spending our money. Talking about redesigning the space suits,¹³ which cost over \$400,000 apiece, he says "The fact that

this was also an expensive course to follow did not worry me a bit. One nice thing about Apollo was that no one ever told us we were running the price up too high." ¹⁴

From Glenn's brief 3 orbit ride in a Mercury capsule through the Gemini missions that orbited for as long as 14 days, only the Gemini 7 capsule reported a cabin temperature of 29° C (83° F) despite air-conditioning. ¹⁵ Not one of the Apollo missions report such heat problems during the 8 days each one spent in unremitting sunlight on their way to, and back from, the Moon? And neither did the Apollo 17's LEM. It sat on the Moon's hot surface in the blazing Sun for 75 hours (3 days) without a sunshade. This would have required all kinds of refrigeration, plus the electrical power to drive it. The only way you can refrigerate in space is to use the explosive cooling of ejected water. Many tons of water would have been required, and the spout of each ejection would have been readily visible.

Even the geo-synchronous satellites which spend 12 hours in the Sun and 12 hours in the shade report no overheating per se. However, I would bet that they were designed to function with internal temperatures high enough to kill astronauts.

How then could Skylab alone have this problem? In fact, NASA went out of its way to make us believe the opposite with its "Space is cold!" nonsense campaign. The only answer to this dilemma is that... Skylab was basically another ten billion dollar hoax. Skylab was supposed to weigh 34.4 tonnes (35.4 million grams), which made it 10 times heavier than the Gemini capsules. This mass (weight) has to approach the combined mass (weight) of the Apollo command and service capsules, which needed Saturn V engines to get them in orbit. (Both the Gemini capsules and the Skylab were orbited with the old Saturn 1B engines which had only 1/10 of the power of the humongous Saturn V engines).

This raises an interesting question about those Saturn Vs. Did each Apollo shot consist of lifting stripped-down and empty Apollo shells into the Florida skies using Saturn 1B engines? Bill Kaysing believes that the Saturn V engines never worked, and now it seems very likely that Skylab's heating problem was just another NASA lie in order to evade doing some of the more difficult scientific experiments whose results couldn't easily be faked.

New information seems to indicate that the NASA lies started with the Gemini 5 capsule. This mission was launched on August 21, 1965. The crew consisted of Gordon Cooper and Pete Conrad who reported that the oxygen pressure had dropped from 800-psi to 120 in their fuel cells during the first two hours because they powered down and had to shut down the air-conditioning so the capsule got cold.

Buzz Aldrin, in RETURN TO EARTH, never got around to explaining why Roy Neal's simple, no-tricks question was such anathema. What exactly is so bothersome about, "Now that almost two years have gone by, why not tell us how it really felt to be on the moon?"

Well, it has been almost 24 years, and he still hasn't answered that question other than to talk about depression. I believe his depression is certainly real, but what caused the depression? Why did that question make his throat dry, make him dizzy; even make

him cry over it? As noted before I am no psycho-babbler, but it seems to me that only a psychic scar could produce that amount of reaction to an innocuous question. That scar could be the result of consciously living a lie or of drugging and hypnosis. Yes, it's very possible that our federal government would do this. The passing years have shown that the CIA is no better than the Russian KGB, the Iranian Savak, or the Nazi SS. They are simply more successful at their skullduggery than the rest because of their unlimited funding.

Will Aldrin and the rest of the astro-nots die with this lie gnawing a hole in their souls? Probably so, because they and many others committed a crime against the people of the world in general, and America's citizens in particular. They need our forgiveness, but to get it they owe us at least a deathbed confession. After all, by their actions they helped steal 40 billion dollars from the rest of us. By their silence they are compounding the sin.

They have apparently forgotten in their zeal as patriots that we citizens, not the leaders, are the country. I realize they may have had the best of intentions and that patriotism danced in their heads. But, the road to hell is paved with good intentions; skewed slightly from their original premise. The premise of the founders of this country was truth and honesty, but the CIA is a nest of premise-twisting snakes.

NASA's science is an accumulation of fiction piled on top of hard fact. Once the fiction starts the truth gets buried. Case in point: Rocks similar to the "Moon rocks" have been found in Antarctica or was it vice versa? The geologists have been forced to postulate that they were blown to Earth in relatively recent but unobserved meteorite landings or volcanic explosions. My own feeling is that the so-called "moon-rocks" brought back by the Apollo Program, were obtained in Antarctica during the IGY (International Geophysical Year) of 1957. From the few they've been able to examine, geologists haven't yet found anything unique about lunar samples. They're the same as rocks found here on Earth!

To this day the newer astronauts have rarely been interviewed, and none has ever spoken of the brilliance of the stars and planets. NASA instituted this policy. Why? Didn't the original pilots of the early high altitude rocket planes speak of seeing the stars in broad daylight?

And why aren't most of the Apollo astro-nots dying of cancer, leukemia, and/or deficiency diseases? In fact, according to the government's own experts, every man on any of those flights should have caught at least 70,000 rems each day of the trip.

The Moon hoax provided an incredible amount of money, much of which was pilfered by the so-called "intelligence community". Much of the excess money found its way into Vietnam and Laos, but the rest was undoubtedly swag. It crept, on feathery footfalls, into Switzerland where the gnomes of Zurich (Rothschilds' henchmen) guard it well for the spooks who stole it.

This book, no matter the exposure, cannot stop NASA's newest rip off attempt, "Project Outreach." Only an insider can do that. Today, our country cannot absorb a trillion dollar hoax, without the United States defaulting on our debt to our creditor

nations. In the court of international last resort, the sale (transfer) of land is the only way to pay off debt by a country when all else fails. Which states do you recommend we cede to Japan, Europe or the Arabs? Where is the patriotism that drove us on all those years ago? Now is the time to become truly patriotic because it is needed more than ever! It is in the power of the original astro-nots to stop NASA now! All it takes are public confessions.

I understand the power of the shadow government, which I have challenged, in writing this book. But I write because I just happened to have been quietly sitting in front of the fan when they threw the blivit. (A blivit is ten pounds of shit in a five pound bag). I realize that if NASA even suspected any astro-not would confess, they would transport them to a federal funny farm before you could blink. I also realize that I have put those same astro-nots on the griddle, but somebody has to "fess up" to save our country.

Let me add here a cautionary word to anyone who finally does decide to "fess up". Tell no one of your plans. Don't discuss them in your car or house, because today the walls literally have ears and all telephones are tapped. Even the mail of possible 'enemies' of the state is read. Think about that, you heroes who may one day become enemies of the state! Trust no priest or minister because many of them historically have always supported the establishment and continue to do so.

Use special care in what you tell any psycho-babbler, since they have a natural propensity toward locking people who tell strange stories in rubber rooms. The only sure way to disseminate a confession to the people is to appear at a small TV station during the evening news-hour and ask for an immediate spot. Make sure it's taped. After that, call the other astro-nots and tell them exactly what you did and your reasons for it.

To Buzz Aldrin, I speak directly: I am reprinting one of the strangest quotations from your book. You were writing about the pin parties that were thrown after an astro-not allegedly ventured into space. You said, "I don't remember any special event at my first pin party except that there was a great deal of joking about my bananas. I do remember my second. Tom Stafford, John Young, and Gene Cernan had flown on Apollo 10, and because of enormous activity and concentration required to get Apollo 11 off to the Moon, their party was postponed. When a lull in our activities after flight permitted a free evening, the crews of Apollo 10 and 11 were given their gold pins.

"The highlight of the evening was a film showing Fred Haise, my back-up on the flight to the Moon, stumbling around on the surface of the Moon until, in desperation, he retreated to the lunar lander which, the moment he stepped on the ladder, tumbled into pieces around him." ¹⁶

But Buzz, according to NASA's official records Fred Haise never set foot on the Moon! Apollo 13 (his flight) ended when an oxygen tank blew apart in space. Was this just another simulation like the Scheer film? Couldn't you tell the difference between fantasy and reality? Hercules, it's your last chance to direct the river of truth and flush out NASA's Augean stable.

Here's a happy thought— what will the other astro-nots do if one dies, and has made provision to posthumously release a confession? Will they band together and brand the

deceased a madman? Suppose they do so, except for just one more maverick? The permutations are endless.

I'm convinced that NASA took us for a an incredibly expensive space ride. I am equally convinced that NASA's new agenda includes space stations on the Moon and a manned trip to Mars. Since they still use the fabric suits and have not found a way to lift a ship into space with 2 meters of shielding these new missions must again be faked. Their current temporary goal is a few billion dollar space station, but no bureaucracy ever lets go of its goals. It must ever entrench itself deeper into the public feeding trough.

Before NASA can restore its credibility here are some of the questions whose answers I would like to receive from —

Never
A
Straight
Answer

WHY ???

1. The first man in space, Yuri Gagarin, pronounced the stars being "astonishingly brilliant". Our astro-nots reported them as "dim and fuzzy". Was this because of NASA's inability to accurately simulate a starry background?
2. The photo of Collins in the zero-G aircraft was painted over to show him space walking on the Gemini 10 mission. Why was the picture doctored if the mission was for real?
3. The astro-nots reported that the LEM blasted out a deep crater in landing on the Moon. Why have NASA pictures never reflected this?
4. In fact, even the dust was left as shown by the crystal clear footprints under the various LEMs. Why should the Moon dust leave such clear footprints when here on Earth clear prints are always the result of moisture?
5. The original TV pictures were blurry and indistinct. The TV networks were forced to scan a magnified screen instead of piping the pictures directly using coaxial couplers. Why was NASA afraid to let us see the clear pictures?
6. The Sun creates only parallel shadows everywhere. Why did so many NASA Moonscape photos have non-parallel shadows?
7. The backgrounds on most of NASA's lunar photos starts after just beyond the subject and shows little detail. Why did NASA use painted backdrops?
8. Stage prop rocks have identifying marks so that they may be correctly positioned for the scene. Why did one of Moon rocks have a capital "C" marked on it?

9. A NASA photo of the Gemini 6A capsule clearly shows a long fiberglass whip antenna mounted on it. How did this antenna survive the tremendous heat of re-entry?
10. Skylab overheated after 3 hours in orbit while it spent 80% of its time exposed to the Sun. Gemini 5 became cold when power was lost, although it spent half its time in the Sun. Apollo 13 began to freeze up when it lost power even though it spent all its time in the Sun. All six of the LEMs spent up to 72 hours in the Sun and they were reported as "too cold to sleep in". Why do these discrepancies exist?
11. After a two and a half years I have not received the data on x-ray and proton solar emissions during the Apollo years. Why won't NOAA send me that data?
12. The Russians told astronomer Bernard Lovell that they knew of no way to protect their cosmonauts from radiation after they passed the Van Allen belts. Why did NASA claim that a fabric suit could protect them against lethal flares?
13. A NOAA solar flare expert claims flares are unpredictable. Why did Collins claim a few years earlier that NASA could predict them?
14. An astrophysicist who has worked for NASA writes that it takes 2 meters of shielding to protect against medium solar flares and that heavy ones give out tens of thousands of rem in a few hours. Why didn't the astro-nots on Apollo 14 and 16 die after exposure to this incredible amount of radiation?
15. There was a crotch-to-shoulder zipper on the Apollo space suits. Why was there such little leakage when even a pinhole deflates a tire in quick order?
16. The astro-nots seemed able to bend the joints of their fingers, wrists, knees and elbows at 5.2 psi. Why is a 4 psi boxer's speed bag virtually unbendable here on Earth?
17. Apollo space suits were air-conditioned by the release and consequent explosive freezing of water. This effect should be spectacular with the brilliance of the sunlight reflecting from a myriad of frozen crystals. Why didn't NASA ever film it?
18. During Apollo 11 either Armstrong or Aldrin went gamboling past the LEM. It was the atypical blurry ghost TV picture that we received from that mission. Why could you see the LEM through the astro-not at times?
19. During the flag setup ceremony on Apollo 14 the flag wouldn't stop fluttering. Since there is no wind on the Moon, why didn't they tell us they had a Moonquake at that time?
20. The best TV shot is the takeoff of the Apollo 16 LEM. The camera that recorded the blast-off panned upward to track the capsule. NASA now claims that this camera was controlled from Houston at the end of a longer than two second transmission loop. Who did they leave on the Moon to operate the camera?
21. Without reiterating the list of "Gotchas" I will ask only one question. How will NASA or their apologists explain away the eight "Gotchas"?
22. It is a simple fact that if a single thing is wrong with a photo then it has been faked. I am not a photographer. Why have I been able to find something wrong with almost every NASA photo?

As citizens, you and I must retain our skepticism about "truth" in government. The great iconoclast, Mark Twain, correctly observed: there are liars, damn liars, and then there's Congress! He also noted that some members are undoubtedly among a definable "criminal" class. Nothing has changed. Eternal vigilance is the price of freedom!

Even voting faithfully is not enough to make changes. As documented in the book VOTESCAM - The Stealing of America, year by year our vote is increasingly being modified by electronic and other fraudulent means. It is vital that the majority of us retain an independent point of view. As George Wallace (the then Governor of Alabama and Presidential candidate) said about the two major political parties just before he was shot, "There ain't a dime's worth of difference between them."

We must work at a local level to eliminate voting fraud by demanding that we go back to electronic-free elections. This means paper ballots issued at polling place located, at most, every block or two so that neighbor recognizes neighbor. Then we must all vote and throw out most of the incumbants, regardless of party affiliation. If you agree that NASA must be stopped, then demand that your Congressional representatives force NASA to set the record straight. Phone their offices; bitch, agitate, picket, and gripe. If honesty is to be restored to government, it's up to you and me..

1. p. 56, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
2. p. 94, Ibid.
3. p. 290, Ibid.
4. p. 284, Ibid.
5. p. 96, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
6. p. 295, JOURNEY TO TRANQUILITY, "Young, Silcock & Dunn", 1969, Doubleday
7. p. 296, Ibid.
8. p. 300, THE VOYAGES OF APOLLO, "Lewis", 1974, Quadrangle
9. p. 304, FOR ALL MANKIND, "Hurt", 1988, Atlantic Monthly Press
10. p. 323, Ibid.
11. p. 323, Ibid.
12. p. 166, LIFTOFF, "Collins", 1988, Grove Press
13. p. 221, SUITING UP FOR SPACE, "Mallan", 1971, John Day Co.
14. p. 134, CARRYING THE FIRE, "Collins", 1974, Ballentine Books
15. p. 104, HEROES IN SPACE, "Bond", 1987, Basil Blackwell Inc.
16. p. 189, RETURN TO EARTH, "Aldrin", 1973, Random House

The Radiation Addendums

1 James Miller

When he was young, James Miller, quickly ran afoul of our "masters" by continuously challenging the status quo just as I did. However he finished college, spent 10 years in the military, and was later trained as a radiation expert. His job was to test both the X-15 rocket plane (extremely high altitude ship) and the B-52 that carried it aloft after they had landed. He consistently found that both ships were "very, very HOT and should have been washed down with special safety equipment. . ." This gear was never made available and he eventually quit that job.

Later still he established a very successful company until he came to the attention of those who "control" us. He was then attacked by their major weapon (our system of "justice"). He did jail time for having contempt (richly deserved) of the courts and the judges who rule them (in defiance of our ancient concept of the jury system).

After examination of the data NOAA sent me the second time, this same man asserts that the modern Imagineers (his name for particle and astro-physicists and astronomers in particular and scientists in general) have replaced the alpha, beta and gamma rays with proton flux (a non radioactive particle). They also only speak of the energy in an x-ray, instead of its radioactivity in rem. This data prompted his tongue in cheek question about how many rem there are in a one thousand ton asteroid or meteor traveling at 50,000 mph.

In his communications, he states simply that NASA has never released any real information about radioactivity in space. I guess NASA believes that if they ignore requests long enough the problem will go away. By law, anyone exposed to radioactivity in any form must wear read-out badges. We want to know why the true astro-nots' badge readings were never released. My friend Jim had a lifetime limit of rem and he only worked around the outside of the X-15 and carrier planes when they returned from high altitude flights. But the astro-nots claim they lived out there for days!

Jim stated that gamma rays are produced when any two particles collide, which agrees with what the astro-physicist Mauldin was saying in his book Prospects for Interstellar Travel. Mauldin stated that the protons create immense amounts of radiation that reflect in all directions as they interact with other matter; thereby, necessitating either two meters of water shielding or its mass equivalent of other matter must surround all life forms in space.

My friend states that gamma is always created by the break up of atomic nuclei; the very process that causes an atomic reactor to go critical and to start generating heat. The Cherenkov glow is always present in a reactor's water and is caused by these rays. Why has NASA never released this data? They have hidden the truth by telling us that only a neutron can start an atomic chain reaction. In reality, every collision with matter by high velocity protons and x-rays produces radioactivity!

He also predicts that if I ever smoke them out, they will invoke "National Security", proclaim me to be a Whistle Blower, and threaten my termination. So be it. I will then join a long, long list of dead patriots.

James Miller, died in his sleep on New Years night of 1999. He was absolutely sure that because both NASA and NOAA are controlled by our "masters" through the CIA, they will never send me the radiation data (smoking gun) I seek. They never have!

2

James A. Van Allen

During the late 1950's, James A. Van Allen, the official discoverer of the Van Allen Belt which is our Earth's solar radiation shield, spent millions of government dollars launching high altitude balloons that when at peak altitude fired rockets into space. Nicknamed Rockoons, they carried Geiger counters because Van Allen, like Tesla 50 years before, also expected to find energetic particles that were dangerous to man.

On page 39 of the March, 1959 issue of Scientific America, Van Allen wrote an article entitled "RADIATION BELTS AROUND THE EARTH". The subhead said, "Instruments borne aloft by artificial satellites and lunar probes indicate that our planet is encircled by two zones of high-energy particles, against which space travelers will have to be shielded."

In the beginning of his experiments everyone was puzzled because the counts of the onboard Geiger counters would rapidly climb with altitude and then drop abruptly to zero. On a hunch they finally included a second Geiger counter shielded by one millimeter (.042 inch) of lead to reduce the effect of the highest energy particles and shield out most of the slower ones. By this method it was soon determined that the high counts involved 25,000 hits per second with a peak bombardment of 40,000 particles per square centimeter per second. These high counts started at about 15,000 miles out from the equator and continued for another 15,000 miles. It then became obvious that the original Geiger counters had been overwhelmed by "an enormously high level of radiation."

At that time he also stated that at 30 miles above the Earth the Geiger counters became continuously busy. The word continuous is the operative word here! This altitude places both shuttle missions and the Mir space station under continuous influx. They warn us about Radon in our basements but they send people to spend months in this environment.

High altitude radiation is also shown by the fact that when the radiation count reaches 10 millirems (.01 rem), the SST which usually flies a great circle course over the pole at 65,000 feet is ordered to greatly reduce altitude. Should the dosage rise to 100 rem they must also change course away from the polar zone. A space ship going to the Moon will spend about three hours coming and going through these radiation belts. Then it will spend days in space traveling to the Moon and back in the thin hulled LEM and more days sitting under our deadly Sun on the surface of the Moon where there is no ozone, no clouds, no shade and no Van Allen shield. How much radiation is in space? Nasa claims from little to none!

When he wrote the article, Van Allen, suspected that solar emissions were the cause of the radiation, a suspicion later found to be correct. He had this to say, "In this theoretical scheme the radiation belts resemble a leaky bucket, constantly refilled from the sun and draining away into the atmosphere. A particularly large influx of solar particles causes the bucket to "slop over," mainly in the auroral zone, generating visible auroras, magnetic storms and related disturbances."

As early as 1963, NASA engineers and scientists wrote a book entitled "Aeronautical Engineering & Science" where they stated that even minor solar storms would give people 25 rem per hour through a one centimeter thick aluminum hull. Because the metal on the LEM's hulls were less than .002 inches thick, that 25 rem must be much higher. And the metal of the command capsule walls wasn't much thicker than that of the Lem..

From NOAA solar records we find that there were 134,793 visible solar storms of all sizes and powers during the 25 year period from 1967 through 1991. This is an average of 14.77 storms per day. If each of these lasted only an hour (they last much longer), the average total minimum rem per day in space for anything organic that is above the Van Allen Belt, is 369 rem. In 32 short hours all living things except cockroaches, some bacteria and certain viruses would be dying.

This is why John Mauldin (ex-NASA astrophysicist) in his book "Prospects For Interstellar Travel" wrote that "at least 2 meters (6 feet) of solid shielding" is needed to protect "all living organisms". Anything less is suicide! This is what the men of science had to say about radiation in space. NASA's spin doctors claim that men can live after 500 rems and that space has very little radiation.

On June 24, 1996, I received a copy of a letter sent to Bill Kaysing, a writer on the NASA hoax from Apollo "astro-not" (not a typo) James "Liar" Lovell of Apollo 13 fame. He wrote that Bill had a screw loose and he was wasting his life by doubting NASA. About 3 weeks later Liar Lovell was interviewed in Illinois by a California newspaper (Bill's home territory). He went further, calling Bill a "whacko". The fact that he personally sent me a copy of his letter before the article, proved the libel was both malicious and premeditated.

Bill filed a libel suit and the war was on. I joined the fight to handle the space technology. On our first interrogatory we asked if Liar Lovell had ever heard of me. Lovell committed perjury by denying this. I then sent him two technical interrogatories and held the best for the last. The jury trial date was October 3, 1997, and late that August, I fired that one off. Knowing that he had to stay within NASA's "party line", I designed the questions accordingly.

In response to one question which asked for his official radiation exposure for his two trips to the Moon, he answered, ".4 rem", which is 400 millirem. The time required to pass through this belt is over an hour each way. He spent at least six hours in transit and according to Van Allen, his exposure had to range between 60 and 240 rem. And that was just getting this human guinea pig through the Van Allen shield.

Then Liar Lovell's attorney, probably fearing the jury, raced to the judge and asked for a summary judgement. For reasons unknown, Bill didn't present my tight four page rebuttal which consisted of copies of Liar Lovell's letter to me and its envelope, the fact that he denied knowing me and also the evidence showing deep contradiction between his reported dosage and Van Allen's work on radiation. Instead, Bill handed in 22 pages of dribble. The summary was granted!

Which brings us to the fact that, by Lovell's own admission, if he actually went to the Moon then he was a human guinea pig. He was supposed to be on the first flight to go through the shield. There are no records of any flight ever sent through the shield carrying mammals. When Lovell was asked to provide me (Kaysing) with information of any such flight he claimed he didn't know of any. Would you send human guinea pigs, especially men with the right stuff, into a region which your instruments had pronounced to be a radioactive hell before you sent in monkeys or apes? No? Then why would NASA?

3 Dr. Frank Greening

Since I first started the research that led to this book, I have been searching for absolute proof that James Van Allen's original research, on what was to be called the Van Allen Belts, was correct. He found radiation that sent his Geiger counters off scale, radiation high enough to be lethal to humans who passed through.

After almost a decade of searching (chronicled in this book) Dr. Frank Greening of Ontario, Canada has shared his work with me by giving me some of the following research and the radiation values of the Van Allen Belts. As usual, opinions are mine!

As you read this, bear in mind that even the government agrees that a maximum lifetime dose is 25 rads and that death always begins after 500 rads. In addition, this information has also allowed me to safely conjecture about the radiation in the region of space past the Belts and between Earth and the Moon.

From the pages of an article "Radiation Protection During Space Flight" which was found in the 1983 "Journal of Aviation, Space and Environmental Medicine", Dr. Greening, extracted this statement "Dose equivalent rate from electrons in the heart of the Van Allen Belt is 280,000 rad per day." Dividing by the seconds in a day we find 3.2 rads per second. The only unanswered question here is, "How wide is the heart?"

From the McGraw-Hill "Encyclopedia of Science & Technology, Vol. 19, pages 163-167, I found additional information and scale sketches of the Belts which are basically composed of an

inner ring and an outer ring. The inner ring, which starts at about 4,500 miles out and extends to 6,400 miles, is much more active than the outer ring. Judging by the shading of the drawing which shows relative intensity of flux, 1900 miles of this ring, about half (950 miles) should be considered the "heart"!

The 3.2 rads/sec doesn't sound like much until you realize that eight seconds gives a life time maximum dose and in less than two minutes, a death sentence. Because a return trip is involved, it leaves us with a minimum travel time of three minutes. At a ship speed of 11 km/sec (6.8 miles/sec), you would be dying upon reentry whether outer space contains radiation or is as radiation free as NASA claims it is.

Since the "heart" of the Belt is 950 miles wide anyone claiming to have made the trip twice would have traveled 3800 miles in the "heart" of the Belt which would have taken 588 seconds for a total exposure of 1790 rads. Broiled astro-not anyone? Oops! Liar Lovell (Apollo 8 and Apollo 13) just received three absolutely fatal dosages in two short years.

He was still very much alive in Sept. 1997 when Bill Kaysing sued him for libel. This is only one of the reasons why I call him Liar Lovell. Any Apollo astro-not who claims to have gone through the shield is a liar.

Before we enter the next section, bear in mind that the radiation dosage formula is $Q \times$ number of rads. Q ranges from 1 for the lower powered particles encountered in the belts, to 10 for the highest powered particles encountered during tremendous solar storms in space. A Q of one shows that even the low level particles must contribute radioactivity and induce damage to life forms otherwise Q should start at zero.

In a prior related article Dr. Greening examines the results of "Operation Argus", a secret U.S. Military experiment of 1958 in which a number of atomic bombs were fired on the edges of space shortly after the discovery of the Van Allen Belts.

Argus I, a 1.7 kiloton blast, on Aug. 27, at an altitude of 160 km. Argus II and Argus III, fired on Aug. 30 and Sept. 6, were also low yield blasts. Argus was succeeded by Project Starfish in 1962. On July 9th, some 4,000 km. above the Earth a 1.45 megaton bomb was fired. It created a new Van Allen Belt having a radiation of 45 rads/sec. It had been theorized that the new belt would decay in a matter of months but in reality, it persisted for a decade. Any astro-not claiming to have passed through would have also run into whatever of this radiation was left from the Starfish blasts.

Over 30 years have passed since Liar Lovell "Mooned" us and to this day not a single astro-not has ever spoke of the brilliance of the stars nor taken photos of them. If the recent copies I received from NASA of the three color photos used in this book are any indication, by now, NASA does have proper photos of the stars. The "C" rock is now unmarked, the size of an 8 x 10 has been reduced to 6 x 5 and the optical quality has been greatly reduced. In a world of digital photos anything becomes possible.

By the same token, NASA's position on space radiation has never wavered. They claim that there is no harmful electro-flux in the great beyond except during that once in a century tremendous flare. They deny Van Allen's leaky bucket description because he believed that it was mainly the Sun that was responsible for the trapped radiation.

However, the Argus experiment proved that radiation can be added from sources exterior to the belts and then be scrubbed away by natural process. Unless the scrubbing is magically limited only to bomb blast radiation, the natural belt must also be decaying at a similar rate. If the artificial radiation took a decade to disappear isn't that a decay rate of approximately 10%? Am I wrong to conclude that at least, 10 % of 3.2 rads/sec must be continuously added?

There would soon be no natural radiation in these Belts unless it was constantly being renewed by something. Since there is nothing between the Sun and us I must assume, just like Van Allen before me, that most of this radiation is created by the Sun. The stars, because of their

distance, can only contribute occasional high powered cosmic ray. If all stars are driven by similar process, I will predict right now that the ratio of solar to stellar will be at least 500 to 1 in favor of the Sun!

Consider Apollo 17, which at 12 days long was the longest flight made. There are over one million seconds in 12 days. At .32 rads/sec the total exposure for each astro-not would be 320,000 rads. A one year trip to Mars anyone?

The solar wind is composed of high velocity protons and electrons which were ejected from the Sun's flares. Slashing through this are occasional heavy doses of X-rays whenever there are large flares. Protons will also create radioactive damage. Since the only difference in flares seem to be their size, the little ones must also create radiation? If so, why are we not being told.

As discussed earlier in this book, we must also remember that even medium solar flares can produce thousands of rads per second with Q factors pushing 10.

Let us consider a reservoir that always contains 100,000,000 gallons despite use. Would anyone dare claim that the input from all sources isn't at least that much over the same time frame? No matter how we look at it, space must be a deadly sea of radiation that no suit and thin hull combination, no matter the materials used, can defeat. John Mauldin wrote that two meters (6 feet) of water was necessary and he wasn't kidding!

There is a complete lack of data on flights that carried life forms through the shield prior to Apollo 8 and its cargo of three great apes. However, if you search NASA biology on the Internet, then grab NASA Life Sciences Data Archive, then grab OVERVIEWS, then grab Unmanned Missions you will see 8 biology flights listed. Unfortunately, for NASA, this data absolutely proves my thesis that Liar Lovell (and his crew) had to be the first life forms to go through the shield. Another strange fact is that the flight data isn't listed. That guarantees that all were under the Van Allen Belts. The first flight listed is Bion 3 and it lifted on Nov. 25, 1975. This is over 6 years after Apollo 8 mission. I think that this really lets the "Moon cat" out of the space sack! Now some genius at Stanford, Martin Walt, speaks of "perturbing our reservoir" (the Belts) by blasting off more high powered A-bombs in space so that we can determine exactly how the radiation input and output relate. A much safer, cheaper and easier way would be to orbit a satellite just past the shield and measure the radiation coming toward Earth. This would also tell us the exact ratio of solar to stellar radiation.

Not only would we have proof positive instead of what is now just theoretical bull shit, we would also not have added to the world's radiation problem.

Found in the text of McGraw-Hill's pages is a statement to the effect that intense precipitation of electrons and protons reduces our ozone layer. Can it be that the Alaskan "HARPP" project which injects tens of millions of watts daily (enough to solve California's on going power problem) into and through our ionosphere is helping to destroy the ozone layer by manipulating the Polar Wind for climate control?

At the turn of the century, before we made the bomb, and before we ruined both our food and our water with radioactive particles, chemicals and pollutants, only about 2 % of our people died from cancer. Today, that number is over 60%.

If volcanoes can and do layer the planet with their dust after every big eruption, it doesn't take an atomic physicist to see that space bombs must also distribute their radioactive wastes all over the planet. In that case, Martin Walt, spare the bombs and spoil the cancer!

THE MARS LANDING ADDENDUM

The Great Martian Landings began August 20, 1975 with the Viking 1 probe when it was launched toward Mars. Previous probes had established that Mars had no magnetic field nor any Van Allan type solar radiation shield. It was also known to have a very thin atmosphere, 97 % of which is carbon dioxide. My Chemistry & Physics Handbook shows the Martian surface pressure to be only .006 that of Earth and this is virtually a vacuum! With no magnetic field, no Van Allan shield, and with no thick atmosphere, the Martian surface identical to space is ravaged by every solar flare that burps from the Sun. Not only can the larger flares produce hundreds of thousands of rem in a few short hours, but many times their particles are thousands of times as powerful as those found inside the pit of an atomic power plant.

In this book I used the NOAA (National Oceanic & Atmospheric Administration) solar records to show that there were 134,793 flares during the 25 year period from January 1967 to January 1991. This gives us 300 months, with a monthly average of 449 flares a month. Of these, John McKinnon, NOAA's own solar flare expert writes, "Probabilities of the order of 1% are considered low with respect to class X flares."⁽¹⁾ Imagine that? NASA is searching for life on a surface that is scoured 1.5 times a day by X rated flares. Sure it is!

NASA as usual, misdirects us by claiming that the Martian surface pressure is less than 1 % than that of the Earth. In actuality, it is less than one tenth of 1 % of the surface pressure of Earth. The Martian pressure is equivalent to Earth pressure at about 37 km or about 120,000 feet which is higher than most clouds and almost as high as a huge balloon can go when carrying a few pounds of instruments. There is simply not enough matter at that pressure to provide any real lift. If the air can't lift then it can't be used to billow out a parachute. Any chute deployed at this altitude here on Earth would stream and once it streams it never fills. Therefore, parachutes on Earth are limited to much lower altitudes.

On July 14, 1976 the orbiter modual which weighed 5,125 pounds detached its lander. I can find no listed weight in my encyclopedia on space but since it could carry up to 638 pounds of fuel in addition to its payload that lander had to weigh at least 1000 pounds.

NASA claims that after the lander was detached rockets were used to slow it down to 560 mph at an altitude of 800,000 feet. Then it was allowed to fall 781,000 feet under Martian gravity before a parachute was deployed at 19,000 feet. At 4,600 feet this chute was detached and NASA tells us that it then had a velocity of 145 mph. Rocket engines under computer control then landed it.

Martian gravity is about .37 that of Earth. Earth's gravity accelerates an object at 32 feet per second. This gives Mars the ability to accelerate an object at 11.84 feet per second. The 560 miles an hour horizontal motion will not affect the downward velocity of an object that falls 781,000 feet on Mars.

The terminal velocity at the time the chute was deployed was about 4,300 feet per second (which is almost 3,000 mph.) That's much faster than a speeding bullet. NASA claims that in a matter of 14,400 feet that chute operating under near vacuum conditions reduced the lander's speed to 145 mph. Sure it did! That was then; let's look at now.

The next probe to land on Mars did so on July 4, 1997. NASA tells us that the "Pathfinder" came in at 16,600 mph and was then jettisoned to boldly plunge into the fringes of the Martian atmosphere without using retrorockets to enter orbit. As usual, there were two different histories given by NASA. The first states that by some miracle during the next minute its speed was reduced to 1,000 mph. ⁽²⁾ The second states that it was jettisoned at 5,300 miles and its speed was reduced in 30 minutes while it fell to 80 miles. ⁽³⁾ In the first case the de-acceleration would have been incredible. However, in the second case the Pathfinder would be at the 80 mile high place still doing 4,280 mph. The NASA story gels murky, but it is assumed the Pathfinder was again allowed to free fall until it was 7 miles high when NASA claims the parachute opened. Instead of streaming because it had been popped in almost a vacuum, it billowed forth and slowed the Pathfinder down. "When it was one mile up it dropped the chute, blew up the airbag, and fired retrorockets reducing its

speed to 23 mph. Then the air bag hit the ground, rocks included and bounced either 3 times⁽³⁾ or 16 times⁽⁴⁾."

Then the roving Martian machine's Earth Master, Michael Malin, who works for Space Science Systems, Inc. was able to watch its images for a continuous 24 hours.⁽⁵⁾ Since all space transmissions are done by line-of-sight frequencies, and because both planets rotate, this is patently impossible. The only way this could happen is if they dropped off at least three geo-stationary satellites above the Martian equator before they landed the Pathfinder. I think the NASA liars decided that this could happen because both planets have days of nearly equal length. Take two circles of paper and put a dot on each nearest each other. Then rotate each paper 180 degrees (12 hours worth) and you will instantly see that each dot is hidden by it's planet from the other dot.

I guess in some similar manner NASA intends to bounce astronauts down to the surface of Mars sometime in the future, where they will once again gambol amongst the Martian life-forms that I'm sure the Pathfinder will soon find. That discovery will make it our duty to bounce down there and meet with these aliens so that we can invite them to our home to visit us.

NASA's appropriation was in committee and being discussed at the time of this perfect July 4th landing. You don't suppose ...? Nah!

I tried hard to believe that only the Gemini missions and the Apollo manned landings were a hoax and that all the rest of their exploits were true. Nagging at me was always the question, "When can you trust a known liar?" Now, I must believe that the answer to that question is never! The next time the Imagineers tell us they found Martian rocks, bear in mind that if they have nothing to compare them with how do they ever figure that out? It is axiomatic, if you can't land, you can't retrieve.

Notes:

- 1. NOAA TECHNICAL MEMORANDUM, ERL-22, McKinnon, Dec, 1972, Dept of Commerce
- 2. New York Times 7/4/97
- 3. New York Times 7/5/97
- 4. Science News 7/12/97
- 5. Science 7/11/97

THE PRESS KIT ADDENDUM

This addendum was extracted from a NASA document originally issued as a press kit on Sunday, July 6, 1969. The release number is 69-83K. Twenty years later it was reissued as a "Souvenir Edition" on the twentieth anniversary of the Apollo 11 Moon landing. The title is "APOLLO LUNAR LANDING MISSION".

The Cold In Space

1. Nowhere in this full size 250 page document is there any worry or provision made for the cold of space. However, it does have statements about the arrangements made to counteract heat build-up. The first is found on page 15.

"During the trans-earth coast period, Apollo 11 will again control solar heat-loads by using the passive thermal control "Barbeque" technique".

2. On page 104 we find this statement, "The primary coolant loop circulates water-glycol for temperature control of cabin and suit..., batteries (silver zinc), and electronic components ..."

3. On page 154 we are told that during the long lunar nights that the temperature drops as low as -279 ° F and that the seismometer needed an auxiliary heat source to keep it no lower than -65 ° F. This worked out to two heaters with an output of 15 watts apiece. Each heater used 1.2 ounces of plutonium 238 and the exploded drawing showed no way to turn it off. If this much heat was needed to keep the unit 200 ° F hotter than the outside during the lunar night, why shouldn't that same amount of heat have added 200 ° F to the unit during the daytime? The Moon's mid-day surface temperature is 243 ° F and that unit should have been well over 450° F at midday. Try baking the guts of your radio in a 450 ° F oven for a few hours sometime!

The Photo Equipment

1. On page 79 NASA lists all the photographic equipment and accessories carried on the LEM. There are no flash units listed. On page 80 we find that the close-up fixed focus camera did indeed have a flash, but it was only used for taking special stereo photos of the surface.

The Space Suit

1. On page 117 NASA claims that the space suits were pressured at 3.9 psi with pure oxygen. I have great reservations that a human can remain active for a sustained period at this pressure. Then they tell about a full body, pressure bladder that over lays a nonex comfort layer. That's great for the body, but what about the hands, feet and head? Did they make little pressure bladders for them? If not, how did they seal the extremities; especially the neck, not to mention the hands, feet or head? Let's face it, a pressure band around any part of the body is called a tourniquet.

A wrist watch even compresses the skin a bit. Squeezing some part of the body, while a total vacuum sucks at the others, should quickly cause trouble to any organism. I defy NASA to demonstrate the pressure bladder at 18.6 psi (3.9 psi positive) on a live TV show. Since you can't trust a known liar, I will provide the brand new, still sealed in boxes pressure guages to stop them from using an ounce or two of pressure and calling it 3.9 psi.

Real Time Commands

1. This is found on page 105. "Although no real time commands can be sent to LM-5 and subsequent spacecraft, the ..." But according to Harry Hurt on the bottom of p. 70 in this book, it was ground based radar doing that work in real time. In the the fourth paragraph on the very next page, you can see that NASA sure had authors Murray & Cox fooled!

2. On page 105 of the Press Kit, NASA also claimed that the landing radar provides altitude and velocity data to the LM's guidance computer. I know that on-board radar can gauge altitude, however, how can it clock the velocity? Velocity is the rate at which you change your position. To do that you need a ground-based reference point, and to acquire these on the Moon would have called for a special mission to land a number of probes on the Moon beforehand. The only reference points they could have had were here on Earth, 240,000 miles away!

THE SHADOW KNOWS ADDENDUM

In October 1995, Joe Nieroski sent me a letter suggesting I examine the Apollo photos for shadow lengths that did not show the Sun's true elevation according to date, time and position. I misplaced the letter. Four months later Ray Labonski had an idea that the terminator line (day/ night division) on the Moon might let him determine whether shots of the Earth taken from the Moon were phony. That's when I had my "brain storm"! I decided to examine the Moon photos for shadows the Sun couldn't have made because of date, time and position. Using spherical trig I could calculate the Sun's elevation above the lunar horizon to determine whether the shadow lengths for a given object were too short or too long for the time frame of when the astro-nots were supposed to be gamboling on the Moon. All I had to do was renew my spherical trig and celestial navigation skills.

My knowledge of spherical trig began when the onset of arthritis brought my very active lifestyle to a screaming halt. To keep my sanity, I began to design a 50 foot sport fishing boat using semi-submersible hulls. The design was so promising that I knew that a boat of this type (if specially fitted) could easily break the self-contained small boat trans-atlantic speed record. Since a speed record was dependent upon staying on great circle routes, I began to study celestial navigation and discovered that conventional navigation was difficult to learn by my usual do-it-yourself methods.

Navigation by non-electronic means requires an accurate time piece, a sextant, a current "Nautical Almanac", local charts and the purchase (each year) of a number of books filled with tables. These tables are solutions to tens of thousands of spherical triangles, all calculated by the use of spherical trig. Determined to learn spherical trig I took a batch of applicable math books home from the library and again encountered difficulty. The pace of the do-it-yourself method is usually slow because text books are written by people more interested in impressing their peers than teaching their readers. I was on the last batch of books the library owned (still hopelessly entangled) when one author made a fatal error. He compared spherical trig with plane trig and mentioned that both are based on the relationship between the sides and the included angle. The veil lifted and in the next 10 seconds, I became a spherical "trignominist".

During that period of pain, I also invented the Inversa-sphere which is a mechanical method of celestial navigation utilizing the inside of a hemisphere that contains latitudinal and longitudinal grids. The concave surface allows smaller compasses to give the same accuracy obtained by working on a larger sphere when drawing the navigation LOP's (Lines of Position), as shown in chapter 7. By inspiration, one day I also developed a new navigational system that eliminated the necessity of buying the books of tables each year. My method only required a sextant, clock, Nautical Almanac and a scientific calculator to determine a geographical position using spherical trig.

I went to the local library to review spherical trig and copied the formulas necessary to calculate the Sun's elevation for each of the alleged Moon landings and lift-offs. The exact time of new moon for each of the Apollo missions determined the amount of the Moon's rotation from that time until the Lunar landings and take-offs were made. Since mission time was reckoned from the instant of lift-off from Earth, I also needed accurate times of lift-off and the lunar latitude and longitude of the various landing sites. At my local library I found discrepancies.

The Newark Library beckoned, and, following its siren call, I discovered that their books contained similar discrepancies in sites and times. NASA, which has always assured us that it knew within a few yards where everything was, couldn't keep proper time or record the sites exactly! There were two missions for which exact time was not supplied, but I was able to calculate it within a few hours. I wrote to NASA to see what it had to say about discrepancies, but I expect zero help from that direction. If NASA stays true to form it will never answer. In the meantime, I used the locations and times I have available.

The unanswered question is why is this data not accurately listed in technical space encyclopedias? Accurate astronomical data on the time of the new moon for each mission was found in the appropriate "Nautical Almanacs". The Handbook of Chemistry & Physics gave me the inclination of both the Moon's polar axis and its orbit. The polar tilt is 1.537°; and the orbital inclination is 5.12° to the ecliptic. Also given is the period of rotation which was 2,360,550 seconds or 27.32 days. This gives a lunar rotation of 13.176 ° per day.

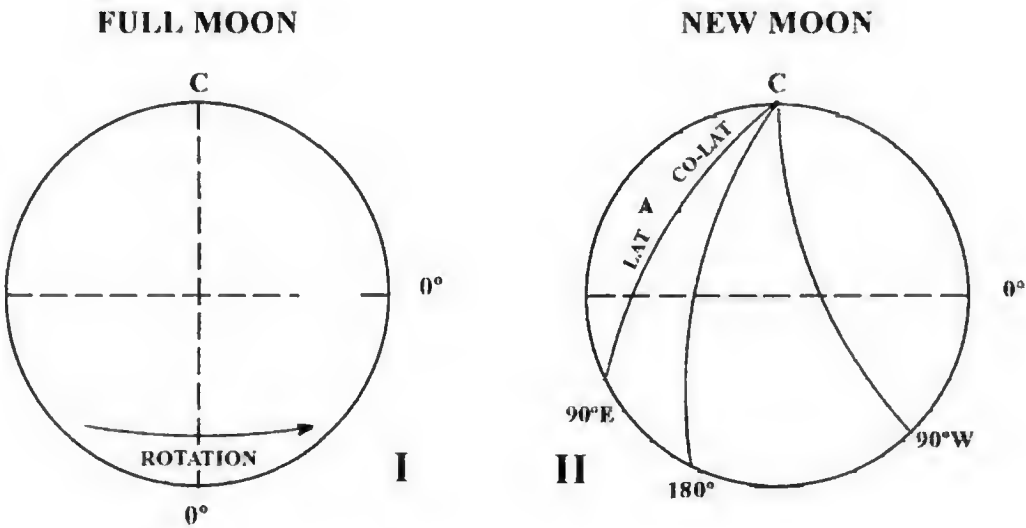
The last two items in the first line of the mission data chart show the elapsed hours from the blast off from Earth to the Moon landing, and the Moon lift-off. The second line shows the date and time of the preceding new moon and then the days and hours to the landing and blast-off. The third line shows the total days and hours from new moon to the start time. The fourth line has the total hours from new moon to both Moon landing and Moon lift off. The fifth line shows the total hours of rotation since the new moon.

MISSION DATA

Mission	Site	Start Time	On Moon	Off Moon
Apollo 11	01°N - 23°E	7/16/69 - 1300	+100 hrs	+124 hrs
New Moon	*	7/14/69 - 0500	04-04	05- 04
Days & Hours	*	02-08	02-08	02- 08
Total Days	*	*	06- 12	07 - 12
Rotation	*	*	06.5	07.5
Apollo 12	03°S - 24°W	10/14/69 - 1600	+110 hrs	+142 hrs
New Moon	*	10/09/69 - 0500	04- 14	05-22
Days & Hours	*	05- 10	05- 10	05- 10
Total Days	*	*	10-00	11 -08
Rotation	*	*	10.0	11.3
Apollo 14	05°S - 15°W	1/31/71 - 2100	+108 hrs	+142 hrs
New Moon	*	1/26/71 - 0900	04- 12	05-22
Days & Hours	*	05- 12	05- 12	05- 12
Total Days	*	*	10-00	11 - 10
Rotation	*	*	10.0	11.4
Apollo 15	05°N - 02°E	7/26/71 - 1300	+104 hrs	+171 hrs
New Moon	*	7/22/71 - 0800	04-08	07-03
Days & Hours	*	04-05	04-05	04-05
Total Days	*	*	08- 13	11 -08
Rotation	*	*	08.5	11.3
Apollo 16	09°S - 15°E	4/16/72 - 1800	+104 hrs	+175 hrs
New Moon	*	4/13/72 - 0100	04- 08	07-07
Days & Hours	*	03- 17	03- 17	03- 17
Total Days	*	*	08-01	11-00
Rotation	*	*	08.0	11.0

Mission	Site	Start Time	On Moon	Off Moon
Apollo 17	20°N - 31°E	12/07/72 - 0500	+110 hrs	+185 hrs
New Moon	*	12/05/72 - 0300	04- 14	07- 17
Days & Hours	*	02- 02	02-02	02-02
Total Days	*	*	06- 16	09- 19
Rotation	*	*	06.5	09.7

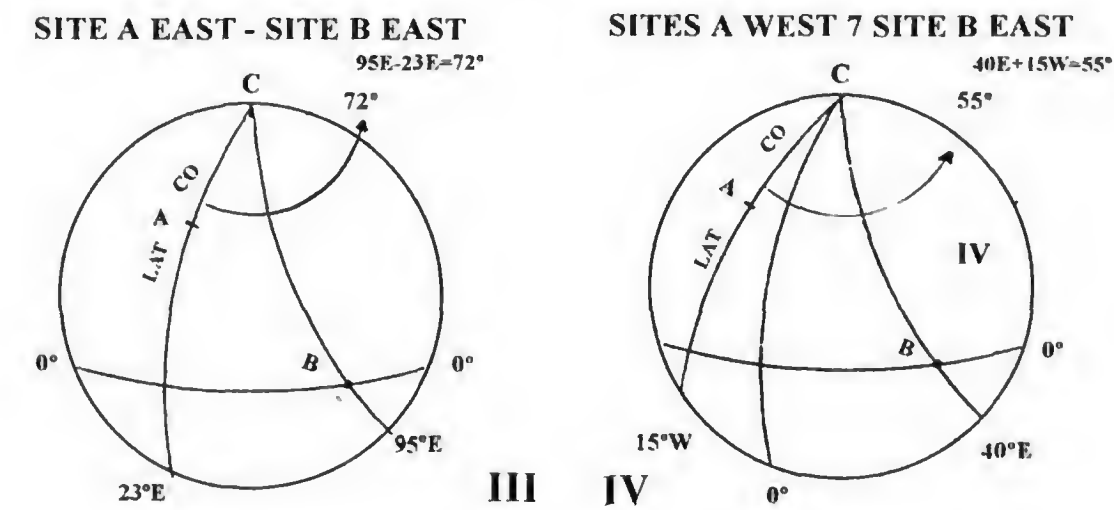
Sketch # I shows the full Moon. The exact middle of the face we see is zero longitude and always faces toward Earth. Therefore, the 180th longitude must be facing the Sun at the instant of new moon. Sketch # II shows the rear side when the Moon is new. Point C represents the pole of rotation. This sketch is a schematic that shows the impossible because the spread of longitude is 180° apart. Point A represents a landing site. Notice that there are two labels on that line of longitude. One is LAT, which stands for the latitude or the angular measurment from the equator. The other is CO-LAT, which stands for co-latitude and is the angular measurement of the site from the pole at point C. If the latitude is North then the CO-LAT is equal to 90 - LAT. If the site's latitude is South, the CO - LAT is the LAT + 90.



Since I can only estimate the Sun's elevation to within a couple of degrees, and since the Sun's displacement of plus or minus 5° results in less than a 1 degree difference in elevation, I can ignore both polar tilt and inclination and always use the lunar equator for one of the parameters of the Sun's geophysical position. Without entering NASA's archives and physically submitting my body to their control, I have no way of determining the exact times the various photos were taken. I can only compare them by calculating the extreme geophysical positions of the Sun for the day and hour of each Moon landing and lift-off.

First, I will calculate the Sun's position during the Apollo 11 landing. Under the heading "On Moon" in the mission data chart, we find that the landing took place 6.5 days after the new Moon. We multiply that figure of 6.5 days by the rotational rate of 13.176° per day and get 85°, which we subtract from 180° to find the longitude of the Sun was 95°E. The rotation is always the days elapsed times the angle of 13.176°. The new longitude is always 180° minus the determined result. Using the same procedure I calculated all the Sun longitudes for all the landings and liftoffs as shown in the polar angle chart.

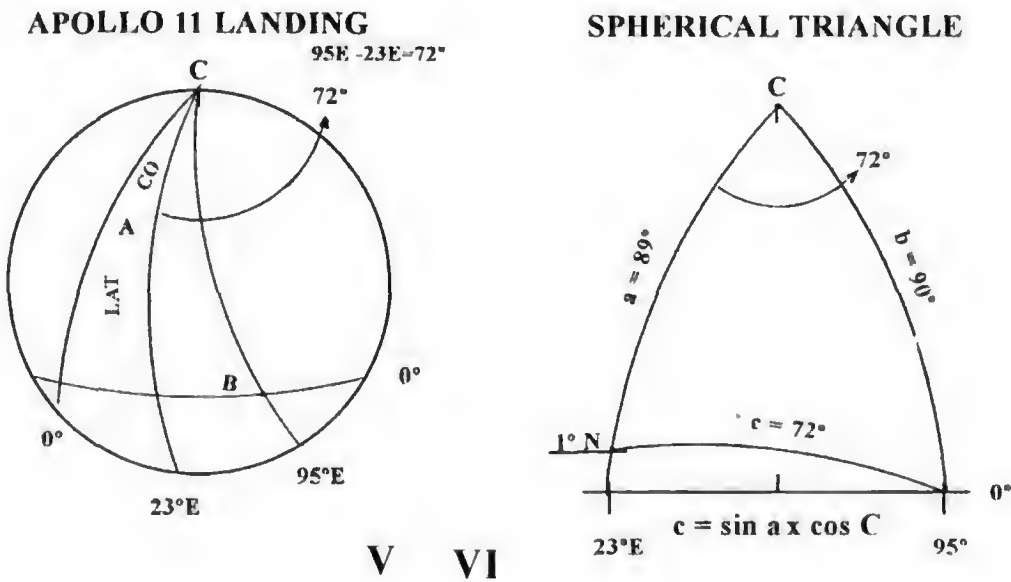
The next step is to determine the angle of separation between the Sun site and the landing site. Because both sites are the same longitude (East), we subtract the site (23°E) from (95°E) and we get a polar separation angle of 72°. I repeated this process for the time of lift-off and found the polar angle was 58° (81 E - 23 E). In Sketch # III, we see the reason for the subtraction. In Sketch # IV when the longitudes are opposite we add the longitudes to obtain the separation angle.



The lowercase letters and functions stand for arc distance from the pole and are called the co-latitudes of the sides; the uppercase is for polar angle C. In Sketch # V we plot the Apollo 11 landing site A (1°N) to the sun site B using line c. Once we draw side c we have formed the basic navigational triangle. The two sides are formed by the co-lat of site A and the co-lat of site B while C is the angle between the two sides and side c is the final enclose. This is now a spherical triangle. The basic equation used for spherical triangles when 2 sides and the polar angle are known is of this nature : $\cos c = \cos a \cdot \cos b + (\sin a \cdot \sin b \cdot \cos C)$ where c equals the arc separation distance of landing site from the Sun.

Because side b is always 90° and the cosine of 90° equals 0, we can eliminate the first half of the equation. We are left with $\cos c = \sin a \cdot \sin b \cdot \cos C$. However, since the sine of 90° = 1 we can also drop sin b. The final equation is the greatly simplified: $\cos c = \sin a \cdot \cos C$. Naturally the acos of cos c equals the arc distance. In each case, for a single mission, side a of the triangle will be 89° because the landing site remains the same.

In Sketch # VI, I used a type of schematic I created 20 years ago to represent the spherical triangle. This helps me visualize the arc separation distance before beginning the calculation. I label point C (the polar angle) 72°. Since the two sides are measured from the pole in degrees, we must introduce the term co-latitude. The co-latitude of the site (side a) is the arc distance form the pole which is 90° - 01° or 89°. Since we are assuming the Sun to be on the equator the co-latitudeof the Sun (side b) is 90°.



The arc separation of the Apollo 11 landing is found by multiplying the sine of 89° by the cosine of the 72° polar angle. This calculates to a little over 72°. The Sun's angle of elevation at that time was 90°-72° or 18°. All the other landing and lift-off calculations are identical. The Apollo 11 lift-off is found by multiplying the sine of 89° by the cosine of the 58° polar angle. The arc distance here is a little over 58°. Therefore, the Sun's elevation at that time is 90° - 58° or 32°. By similar calculation I found the Sun's elevation at landing and lift-off for the other missions.

SUN ELEVATION CHART

Mission	Sun Elev.	Mission	Sun Elev.	Mission	Sun Elev.
Apollo 11	*	Apollo 12	*	Apollo 14	*
Land	18°	*	18°	*	27°
Lift	32°	*	36°	*	45°
Apollo 15	*	Apollo 16	*	Apollo 17	*
Land	27°	*	30°	*	24°
Lift	57°	*	68°	*	61°

The photo of "Gotcha #1" on page 144 shows that Aldrin's shadow was produced by a Sun that was 34.9° above the horizon. The Sun's maximum elevation for that trip was 32°, but a difference of 2.9° is not enough to be absolutely certain. However, if we consider that the salute ceremony was one of the first items of business each time they landed, and was performed in the first 6 hours on the Moon, we have a Sun elevation of only 22°. The difference here is almost 15°. It is very significant to be well beyond any possible error. This single photo is enough to destroy forever NASA's claim of landing astro-nots on the Moon.

On page 10 there is a photo that shows the shadow from the foot pad on the Apollo 14 LEM. The measurements of the height of it are 0.21 inches. The length of the shadow is a minimum of 0.91 inches. Since the tangent of the angle is found by dividing the height by the length, we find a tangent of 0.023. The atangent of this is the angle of 13°. However, the Sun was already 27° high when they landed and 68° when they lifted. If they raced outside and popped that picture they still would have missed by 13°. If they waited an hour or so the difference increased. This discrepancy is also very significant.

The cover photo also has a shadow discrepancy. Pete Conrad, shown in the reflection on Bean's faceplate, has a shadow that clearly shows his crotch. To the best of my measuring ability I find that the height of his crotch from a line connecting his heel is 0.140 inches. The length of his shadow from that same line is 0.142 inches. The tangent of the angle is 0.9859 which gives us an angle of elevation of 44.59°. However, the maximum height of the Sun when they left was only 36°. Oh dear!

I have no doubt that all these Sun angles were pre-calculated by NASA, but something obviously went wrong on the film set. Perhaps the head cameraman had an artistic hissy fit and changed the main lighting angle for dramatic effects. All I know for sure is that neither of these photos were taken on the Moon. And, if these were faked — why not all the others?

The Apollo 16 mission landed when the Sun was 30° above the horizon and had been continuously heating the ground for over 8 days. In the NYC area the Sun is that high at the winter solstice. Anyone who works outside or goes skiing can tell you about the amount of heat that you get on a clear day. The astro-nots stayed until the Sun attained an altitude of 68°. In the NYC area the Sun gets that high in July. When I designed a solar collector many years ago I knew I needed to take the overhead Sun as unity (enough to heat the lunar surface to 250° F) so the heat varies as the cosine of 90° minus the altitude. Therefore, at 30° of elevation the heating effect is 50%. At 68° it is 92%. How hot is the lunar surface after being baked for 11 days straight with no night to let it cool down? How long does it take until the surface of the Moon (and the LFM) is 200° F? I wonder if these astro-nots also lost sleep because their LEM was too cold?

THE NASA PHOTO ADDENDUM

In 1992 I originally predicted that NASA would find a way to "lose" the three color photos used in this book. You saw this mentioned in the "Author's Notes" at the bottom of page J. I also predicted that the photos would be obtainable. They are and are not. Read on!

The ink was barely dry on my first edition when I tried to get extra copies of the three colored photos. For \$13 apiece they had the gaul to send me three 8 by 10 glossy full color optical quality photos of their choice. When I sent them back to get either my money or the right photos they sent me the money and informed me that I would have to give them the new NASA numbers.

When I asked for the list of the new numbers I was told, "We lost the cross-over index."! Gee! I wonder why a mission numbering system in place for 23 years was suddenly changed?

Sometime during '99 I tried again. This time I was told that the photo sales had been privatized and that the Bara-King Studios in Maryland now supplied the photos. In February, 2000, since I still couldn't get the "lost" index I sent Bara-King Studios black & white copies along with \$15 apiece for the three, 8 by 10 optical quality glossy full color photos you see in this book.

They sent me the right photos. However, the photos were not 8 by 10 optical quality glossy full color photos. Instead, they were computer derived showing grainy, blurred colors. In addition, the "C" on the rock had been brushed out, and the size reduced to 6.75 by 7 inches.

I screamed and yelled for my money back which they immediately returned. I kept the photos and sent them a copy of this book so that they could see for themselves what NASA did. So ends the saga of the "lost" numbering system.

THE BEST FOR LAST ADDENDUM

From day one of writing this book, I sort of felt sorry for the astro-nots involved in the Apollo missions because I thought the devil (CIA) may have made them do it. However, since Jim Lovell lied on the interrogatories for a libel suit against him by Bill Kaysing, I have consistently called him "LIAR LOVELL". Now we can visually prove that all of the Apollo astro-nots were willing accomplices and therefore, all of them are liars!

On Tuesday 4/25/00, I attended a video premier in Nashville, Tennessee hosted by Bart Sibrel of Absolute Video. Bill Kaysing and I were the guests of honor because this video used much of the information Bill and I spoke of during the long interviews he had of us filmed years before for a documentary. He worked on it almost three years and last July (1999), he stumbled upon NASA footage of the Apollo 11 missions that contained the smoking gun. I suspect that the original interview video is now history along with the fact that he promised to credit us as authors prominently display our respective books and tell his viewers how to find us. Somehow, we became his researchers and his credits fly by so fast you would need to stop the motion to see our names.

Later still he found two other sets of NASA footage that showed the bullets being fired. These two sequences with their title slates were the first thing we all saw that day. None of this had yet been woven into the video. The dates on both slates showed that this footage was filmed days before they left for the Moon. One video showed the landing we later watched and the other an astro-not (one liar or another) gamboling on the Moon. The important phrase is: "days before they left"!

The first NASA footage he found in July is included in his video "A Funny Thing Happened On The Way To The Moon". This is the title I had used for my original manuscript and which subsequently became the "NASA MOONED AMERICA!" you are now reading. But I was only his "RESEARCHER"!

On July 19, 1969, Aldrin, Armstrong and Collins were supposed to be half way to the Moon. However, the video footage (date stamped July 19, 1969) shows them in a low Earth orbit (still under the Van Allan Belts) taking trick photos of the Earth to "prove" they were half way to the Moon. When you are in low Earth orbit (a couple of hundred miles) the Earth almost completely fills the portholes. The only photographic proof they could offer during the early days of the mission was to show the Earth shrinking in the portholes as they progressed. When you are actually halfway to the Earth's apparent diameter shrinks.

However, the NASA video shows that Collins, Armstrong and Aldrin were actually "shrinking" the Earth. At first, they had the camera lens near the porthole. Then they totally blacked out the ship (even the instrument lights) and began to slowly move the camera away from the porthole. Since the wall was now so dark we assumed that the wall was the porthole. In a few feet of the July 19 footage, we suddenly see the barely visible rim. We also see someone's arm accidentally get between the porthole and the camera lens. This proves that the camera is no longer close to the porthole. The footage is also in color after all the astro-nots involved (and NASA) swore that Apollo 11 carried no color cameras to the Moon.

Thinking about this, it is one of the few times the NASA liars have told the truth. That capsule never carried a color camera to the Moon because it never went to the Moon. And there you are ... I did save the best for last.

USA MANNED MISSIONS

Name	Dates	Mission	Crew		
Mercury 1	05/05/61	Ballistic	Alan Shepard		
Mercury 2	07/21/61	Ballistic	Gus Grissom		
Mercury 3	02/20/62	Earth Orbit	John Glenn		
Mercury 4	05/24/62	Earth Orbit	Scott Carpenter		
Mercury 5	10/03/62	Earth Orbit	Wally Schirra		
Mercury 6	05/15/63	Earth Orbit	Gordon Cooper		
Gemini 3	03/23/65	Earth Orbit	Gus Grissom	John Young	
Gemini 4	06/03/65 to 06/07/65	Earth Orbit	Jim McDivitt	Ed White	
Gemini 5	08/21/65 to 08/29/65	Earth Orbit	Gordon Cooper	Pete Conrad	
Gemini 6A	12/15/65 to 12/16/65	Earth orbit	Wally Schirra	Tom Stafford	
Gemini 7	12/14/65 to 12/18/65	Earth Orbit	Frank Borman	Jim Lovell	
Gemini 8	03/16/66	Earth Orbit	Neil Armstrong	Dave Scott	
Gemini 9	06/03/66 to 06/06/66	Earth Orbit	Tom Stafford	Gene Cernan	
Gemini 10	07/18/66 to 07/21/66	Earth Orbit	John Young	Mike Collins	
Gemini 11	09/12/66 to 09/15/66	Earth Orbit	Pete Conrad	Dick Gordon	
Gemini 12	11/11/66 to 11/15/66	Earth Orbit	Jim Lovell	Buzz Aldrin	
Apollo 7	10/11/68 to 10/22/68	Earth Orbit	Wally Schirra	Don Eisele	Walt Cunningham
Apollo 8	12/21/68 to 12/27/68	Moon Orbi	Frank Borman	Jim Lovell	Bill Anders
Apollo 9	03/03/69 to 03/13/69	Earth Orbit	Jim McDivitt	Dave Scott	Rusty Schweikart
Apollo 10	05/18/69 to 05/26/69	Moon Orbit	Tom Stafford	John Young	Gene Cernan
Apollo 11	07/16/69 to 07/24/69	Moon Landing	Neil Armstrong	Mike Collins	Buzz Aldrin
Apollo 12	10/14/69 to 10/24/69	Moon Landing	Pete Conrad	Dick Gordon	Al Bean
Apollo 13	04/11/70 to 04/17/70	Moon Landing	Jim Lovell	Jack Swigert	Fred Haise
Apollo 14	01/31/71 to 02/09/71	Moon Landing	Al Shepard	Stu Roosa	Ed Mitchell
Apollo 15	07/26/71 to 08/07/71	Moon Landing	Dave Scott	Al Worden	Jim Irwin
Apollo 16	04/16/72 to 04/27/72	Moon Landing	John Young	Ken Mattingly	Charles Duke
Apollo 17	12/07/72 to 12/19/72	Moon Landing	Gene Cernan	Ron Evens	Jack Schmitt
Skylab 2	05/25/73 to 06/22/73	Earth Orbit	Pete Conrad	Joe Kirwin	Paul Weitz
Skylab 3	07/28/73 to 09/25/73	Earth Orbit	Al Bean	Owen Garriott	Jack Lousma
Skylab 4	10/16/73 to 02/08/74	Earth Orbit	Jerry Carr	Ed Gibson	Bill Pogue

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WTC Lies and Fairy Tales

by René

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FORWARD

In April, 2001, Ernst Zundell, a German speaking friend sent me a copy of a full size, full color German magazine called **"GEO EPOCHE"**. This was a special edition on the WTC disaster that contained dozens of photos that we, the American sheeple, had never seen. I called their New York office and tried to buy a dozen magazines. I was told the edition had sold out months before but they did send me a complimentary copy. Days later, I would realize that the back page contained order forms for previous issues so I called again to tell them when they reprinted to send me a dozen copies. I was informed that weren't going to reprint that issue.

A week after that I called again asking to be connected with an editor to report the information I had found in the photos proved the buildings didn't fail from fire. I never got through and that began a string of failures while I attempted to get what I had found published. On January 1, 2003 I decided that I would self publish the photos and my text proving that everything we have been told is WTC FAIRY TALES & LIES!

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FORWARD

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NEVER BEFORE HAD ANY STEEL FRAME BUILDING FAILED!

I shall prove that the WTC twin towers in New York City did not fail by general collapse due to fire, but instead were blasted apart by high explosives using a building destruction method called implosion! I shall also show that most of what we have been told, repeatedly, about this disaster are fairy tales and lies! It is a fact that up until that day (9-11-01) not a single steel framed building in the entire world had ever failed. Even the Marriot Hotel in Las Vegas which burned for a week was still standing after the fire had burned itself out. Even after the Atom Bombs went off at Hiroshima and Nagasaki in WW2, the steel frames there still stood. There is a simple reason. Most combustibles in an office building consist of paper and plastics and even if the each floor was loaded to 100 pounds per square foot (the maximum load allowed) it still would not contain sufficient BTU to heat the structural steel enough to weaken it.

In addition, the maximum attainable temperature of any steel window-wall area on fire is limited by the fact that the fire loses the oven effect to become an open fire when the windows break out at 350 degrees F. The very first lie we were told by all the stations covering the event was that the building had been designed to self implode in case of fire. I lost almost a week trying to recreate a design that would allow that and then I saw a video of the towers construction. It was a lie because they used standard steel erection. Besides there is no way on Earth to tell a building that the stresses it feels are from a fire and not windload from a hurricane or from ground movement due to an earthquake.

The next lie was that the floor trusses failed because of heat from the raging fires. Most of the fuel from the planes was burned off in four seconds and the rest drained either into the lower levels or outside. Later, you will see visual proof that the fires were minimal even in the impact area of the North Tower immediately after the hit. Had the trusses failed the columns would have been pushed outward from the building in a long vertical strings. Instead, photographic evidence shows the individual columns as ranks of flying projectiles which are preceding the debris of collapse.

EXPLOSIVES

It is also a fact no frame building can collapse into it's own footprint without external force being applied. Even a backyard shed or a single story old house topples over when it falls. It is also axiomatic that the taller the building the greater the topple. There are only two ways to remove a tall building; the first is by floor by floor demolition (from the top down) and the second is by a blasting method known as "Implosion". Let it be noted again that "implosion" was the exact word used by all the TV stations as the destruction happened proving that not only were we not watching live video but that the video was being creatively edited.

IMPLOSION

Implosion means the cutting (by high explosives) of all the columns on a floor or floors selected to be blasted in a carefully prescribed way, by the individual timing of strings of charges in the various regions of those floors. In low buildings the columns are invariably cut in the basement or the first floor. Implosion also requires that the innermost columns be cut first so that the rest of the adjacent floor will fall towards the middle. Then the next innermost columns are shattered to keep it collapsing to the center and this process is continued until the outer most columns are finally triggered. All the blasts on a floor take place in about a second. This allows the floor above, now carrying the full weight of the all the floors above it, to smash into the floor below using gravity to supply the energy to destroy each succeeded floor as it too, falls.

It is also a fact that a tall building must have two, or more, separate floors cut in the same sequence as before. The first floor to be cut must be a little above the middle and then a second later, the columns on the lowest floor is blasted using the same sequence of events as previously described.

VERY TALL BUILDINGS

A very tall building (WTC Towers) requires at least three floors to be blasted if it is to drop anywhere near its own foot print. Here the first series of blasts would sever all the columns in the top third of the building; then the columns at the top of the first third of the building and finally the last blasts would cut the columns in the basement. In all cases, whether a low building or high-rise, the failure to cut a single column will cause that column to act as a hinge and force the building above it to topple away from the hinge and fall out of its foot print.

OFFICE FIRES

With all of this in mind, let us examine a typical office fire in a high-rise window-wall building. The overall temperature rises to about 350 degrees F., then the windows go one by one bringing in fresh air which intensifies the fire a bit. Despite the fact that the increase in air uses up the remaining fuel faster it also allows the hot gases to flow outside faster. Since we have visual proof that these buildings did implode, if explosives were not used then the fire had to simultaneously cause the thick very heavy inner columns to all fail together, followed immediately by the simultaneous failure of very thick walled, high tensile steel outer box columns. I say this because the only way to duplicate "implosion" is for all the columns to fail in the manner previously described by explosives.

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TOPPLING

The top third of the South Tower did not implode. Instead, it toppled sideways as the two lower sections were successively imploding. Since day one, despite the fact that many of the survivors interviewed immediately after they escaped, reported hearing multiple explosions just before the buildings collapsed, FEMA insists that the towers failed by fire. But still photos and slow motion video show that both buildings failed very close to or at, the upper Sky Lobby area (77th floor) and the lower Sky Lobby (34th floor). Both floors had no tenants because they acted as service areas for plumbing, electrical, and heating and air conditioning in addition to housing the area elevators and the escalators.

EXPLOSIVE PLACEMENT Returning to the placement of the explosives, the core columns would have created no problem, no matter the floor chosen, because the explosives would only have been visible to a few chosen elevator mechanics. Coincidentally, the only areas where each outer column could have been mined without immediate detection were these service floors and the basement. On the occupied floors many of the desks were right next to the outer columns. Had the explosives been placed on a tenanted floor in the middle of the night, come the morning the first person whose desk was next to a window would have noticed that it had been moved. And when he looked closely at that section of wall, he would have seen that something was also attached that hadn't ever been there before. Then he would have looked at the next window, and the next and discovered that every column had a new attachment. Within minutes some adventurous soul with a pen knife would have cut through the sheet rock and found the explosives. ***But how could they possibly have been mined in any area including the skylobbys and the basement after the hits?***

They couldn't! Each floor had over 300 columns (inner and outer) which would have required many trained men weeks of work, at the very least, to place the charges on six floors (both buildings). Therefore the 1800 columns had to be mined weeks before the planes hit. Unfortunately for FEMA and our President, this precludes Arab terrorists and points an accusing finger at the government.

RAGING FIRES FEMA says the collapse was due to raging 2,000 degrees F. fires that eventually weakened the steel. The first problem with this is that each fuel fire, just like Napalm, only lasted a few seconds and the second is that these fuel blooms were mostly yellow orange in color and produced prodigious smoke all of which is indicative of relatively cold, inefficient fires burning at temperatures much less than the 800 degrees F. necessary to begin to even weaken steel. Smoke is entirely composed of unburned fuel. Every pound of smoke particles that flows out of the building equals one pound of fuel not burned. The next time you see the videos of the plane hits, count the seconds that the fuel bloom lasts! Another reason is that most of the fuel burned off outside the buildings, ***how much heat could have been transferred to the heavy steel columns in those few seconds?*** The answer to that is amazingly little as you will soon see.

GEO-EPOCHE I must speak now of a special issue of a German magazine called "**Geo-epoche** September 11, 2001" which I will call GEO from now on, put out a special edition commemorating the WTC disaster that was published the month following this disaster, and it is a full size, full color magazine with photos that surpass anything that we American sheeple were allowed to see including the fact that the South Tower toppled. Unfortunately, the original run sold out immediately and although it is their standard practice to sell back issues they, at first, refused to reprint despite the fact that people everywhere were clamoring for more. In the late spring they made another run and it, too, immediately sold out. They are not only losing a fortune but are generating a great deal of customer ill will and ***it does make me wonder why.***

The GEO magazine is written in German and what should have been a logical extension for them was to have created an English version. Again, for some mysterious reason, they failed to do so. I couldn't understand the text but I can read a time stamp on many of the photos and others (lacking time stamps) have visible proof of the lies we are being told.

PHOTOS The GEO is filled with close ups, and pages 24, 25, 26, and 57 holds the proof that the towers were explosively imploded. Please note that the photos in this article will use the magazines page numbers on which they were printed. The photos on page 24 & 25 (split at the binding) shows the top 30 stories of the South Tower as it toppled. I knew from day one that the top of one tower had toppled even though, for some mysterious reason, they only showed this footage once on TV for a few seconds. Professor Astahne take note of page 155 where the remains of the toppling south tower are seen. It must have landed corner first because the once square building has deformed into a cylinder. Notice how the how this flat high tensile steel was bent into permanent curves without cracking. It also had to have crushed an area 370 feet wide and 385 feet long. Whether it hit plaza or another building it had to have produced heavy casualties and a huge spike in nearby seismic detectors.

FLYING COLUMNS In addition to the toppling, this photo also clearly shows a fairly level belt of outer box columns flying away from the building and leading the rest of the general debris by a few floors. This separation of box columns from the general debris of the floors they supported would be impossible if the collapse had been caused by either column or floor truss failure as FEMA claims. Had the columns not been blown clear of the building first, they would have been intermingled with the debris and not be clearly seen leading the parade. ***Doesn't gravity demand that all objects fall at the same rate of acceleration?***

DIFFERENCE IN LEVEL I also saw that I could use this difference in level between the outer columns and the debris and to calculate the difference in time from when the columns began their journey toward the ground and the

debris which resulted from the crushing of the upper floor as it hammered into the floor below. I started by measuring these distances and then I cross checked my results by calculating the length of time that the topple was in progress when the photo was snapped. I reasoned that after the columns were blown out, the floor they supported had to fall 13.75 feet (the height of a floor) before any debris could be created. I also saw that the distance between the general debris and the columns would continue to increase until the resistance of the air equaled the pull of gravity (about 90 miles per hour).

TIME OF FALL

Upon direct measurement (using the known floor height of 13.75 feet) we find the columns average lead over the debris to be on the order of 75 feet. I then wrote a computer program to calculate the distance each class of object was from each other in the photo over a duration of 4 seconds beginning with the blast. The upper floor took .924 seconds to hit the lower one. The time that the columns would lead the debris by the 75 feet measured from the photo was about 3.11 seconds.

ANGLE OF TOPPLE

I then physically measured the angle of topple and found it to be 18 degrees. Then by drawing a scale figure (no perspective) I found that at the instant of film exposure the left side had fallen 98 feet. It takes 2.46 seconds for an object to fall (or topple) that far. The difference in seconds between 3.11 and 2.46 is .65 seconds which could easily been caused by the momentary stopping of motion as each floor crushed the next. In addition, 3.11 seconds indicated that the beams had fallen 155 feet from floor of blast which would be about 11 floors above. I then measured 11 floors upwards and found it to be in the darkest part of the photo and this, in turn, as I said before, is in the direct vicinity of floor 77. Had I access to a photo taken a second or so before this one I would be able to exactly show that it was, indeed, the 77th floor.

In addition, had this collapse been caused by the columns or trusses, the toppling would have continued all the way to the ground and finally driven the hinged column outward until either the left side also began to topple outward or the right side broke free to leave the left side still standing. However, this building did neither and at some short period of time after the right side toppled the left side also began to "implode"!

BLOWN WINDOWS

In fact the explosions were so great that all the buildings near the towers had their windows blown in as shown on page 146 & 147 in GEO. FEMA never mentioned any casualties in other buildings. Do you believe that the sides of these other building that faced the towers were not packed with gawkers drawn from all the other businesses in each building. Would you have been able to continue your work under these circumstances? Do you know what happens to people looking out glass windows when the super sonic blast of compressed air from high explosives blows the glass shards into people packed up against a window-wall?

NORTH TOWER

I watched the North Tower collapse at least one hundred times that day in September and never once, was the South Tower shown again. The North Tower fell straight down sequentially which is exactly how the process of inducing implosion by blasting works. It also causes the floors to pause (ever shorter) each time the floor above hammers into the floor below.

LOWER BLAST

The GEO photo on page 26 caught the blast that cut the bottom third. The top of the column of destruction shows the typical mushroom cloud that explosions create while far down the building we see more steel columns flying through the air again ahead of the general debris.

I also noticed while watching the original videos that a short time into this general failure that the bottom of the building also seemed to be dropping which would be indicative of the building being triple blasted *which is exactly how extra tall buildings must be blasted to cause an "implosion"*.

CONTRAILS

The photo on page 57 is yet another proof of explosive implosion. here we clearly see the outer columns in flight and preceding the general debris. Contrails are caused by the ultra hot gases ejected from jet engines high in the air. Some of these beams have ends that have been heated to white hot temperatures that have caused them to leave contrails even though the day was not very humid. No fire can do that. Only explosives as they cut the steel can do that!

MINING THE COLUMNS

The fact that mining columns is both time consuming and easily noticed precludes outsiders (Arabs) which leaves us with only four other options each of which requires insiders:

1. It was mined from the day it was built.
2. It was mined after the North building was bombed in '93.
3. It was mined a few weeks before the planes hit.
4. the structure failed from the fires as FEMA claimed.

The easiest to eliminate is number one. Despite the fact that if a building this massive ever toppled it would crush

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The easiest to eliminate is number one. Despite the fact that if a building this massive ever toppled it would crush half of lower Manhattan, we have the fact that in the late 60's the blasting caps necessary to detonate high explosives would have required electric wires connect them together. Hard wired explosives and electrical storms do not go well together. Especially when the wires are long and in loops where a nearby lightning strike may inductively induce sufficient voltage to set off the caps and then it's good-bye building.

Number two goes by the board because had that been the case the management would have evacuated both buildings immediately after the North Tower was hit. Instead, they told people to return to their desks. This is born out by dozens of eye witnesses at the time of the collapses. Number three, points an accusing finger directly at the government and

owners/managers of the buildings. *Do I smell a culpability law suit here?*

DESTRUCTION BY FIRE This leaves us with fire but only lies and fairy tales point to that. If it was fire then the center core which contained little in combustibles and was the furthest from the air supply could only have caused very cold and very smokey fires. Therefore, if it was destruction by fire either the outer trusses or the outer columns had to all fail simultaneously. Since there are no large open fires of equal intensity there could have been no simultaneous failure of either all the columns or trusses. All the hard facts point to "implosion" and to being explosively mined in the three areas mentioned before.

CLOSE UPS Since close ups or zoom shots were never shown all that we, the sheeple, could see was a lot of smoke from the long range photos. Sometime that afternoon, as the shock wore off I realized that not one camera had zoomed in. *Why? And who told them not to?*

THE PRESS Every fire I have ever seen had the cameramen and the press right at the edge of the action. Even car accidents and small house fires in the NY area usually produce a news chopper or two. And yet, at the greatest fire of modern times, in the greatest city in the world, all of the news people stayed a few football fields away from the buildings right from the get-go. This despite the fact that NYC has the heaviest press coverage in the world and this holds fleets of choppers used for both news and rescue work. *Where were the news helicopters?*

DEAD NEWSIES Whenever a newsy dies in action every paper in the country carries banner headlines. Since I never saw a single headline about any news people killed that day I must assume that not one of them died. Ask any firemen where the media is during a fire and you will be told right behind them. *Who told them to stay way back and when were they told?*

#7 WTC The failure of the two towers was blamed on the fact that floor trusses were longer than in conventional steel framed buildings. But how does this explain the collapse of the 47 story conventionally steel framed building known as # 7 WTC. FEMA claims this building failed from a burning gas main in the basement. Since this building wasn't hit by anything, including the toppling South Tower, *how did that gas main ignite?*

They never mention this building but in the video I saw there was no sign of fire or smoke and the roof line was dead level as it too "imploded" late that afternoon. A gas main in a conventional steel building might destroy a bay or two but, *in a steel frame building it could be compared to burning a candle in your oven?* I must repeat that not a single steel framed building had ever failed in the whole world until 9-11, *what are the odds against both towers and five other steel frames failing on the same day in one section of a single city.*

SUBWAYS During that first afternoon on 9-11 it also became apparent to me that unless they had ordered the subway trains to stay clear of the area immediately after the first hit there just had to be a great number of casualties underground. The WTC was also a transfer area and there are at least three separate lines using separate tunnels, stacked one under the other, that stop there. But why would they clear those tracks? No high rise had ever collapsed before. New York has fires every day but the trains run until there is a foot or two of water on the tracks. And if they expected them to be the first steel frame buildings to ever fail *why weren't the fire men and cops pulled back?*

I have a friend whose South bound subway stopped at the E. 23rd St. station, about a mile from the WTC. It opened its doors and stayed there just after 10 AM (after the South Tower fell). There were no announcements, and after a bit she left the train and headed South down 6th Ave taking photos of the remaining Tower as it burned. Every photo shows both street and sidewalks filled with people all heading South. FEMA claims only 10 sidewalk deaths occurred. *Did this migration toward the towers only begin after the South Tower fell?*

CRUSHED SUBWAY On page 156 of GEO there is a photo showing a crushed subway car under the WTC. Please notice that this tunnel wasn't flooded. Since trains do not consist of a single car, there had to be 10 cars or more in that train. At that time of day and in that area those cars are packed with each car holding well over 100 people. FEMA has never listed any casualties from the subways. However, a local fire captain told me about another train that was pierced then flooded by the rivers adjacent there. That must be the one whose tunnel was sealed with concrete plugs. Even if we disregard the second one as a fairy tale, we have a photo of the first. Later I would hear that they recalled the subways before the first collapse. *Did they recall them but leave the firemen and the cops in the dark?*

RECALL Subway recall would be executed by stopping all trains before that station and telling all trains there or approaching that station or leaving that station to shut their doors and run like hell! Think now about my photo taking friend whose E-train was stopped that morning. But that was after the collapse. Think about this, *how could any train have been crushed if they were recalled?*

SUBWAY FATALITIES Any columns that pierced a tunnel either in front of or through the train would have

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They never mention this building but in the video I saw there was no sign of fire or smoke and the roof line was dead level as it too "imploded" late that afternoon. A gas main in a conventional steel building might destroy a bay or two but, *in a steel frame building it could be compared to burning a candle in your oven?"* I must repeat that not a single steel framed building had ever failed in the whole world until 9-11, *what are the odds against both towers and five other steel frames failing on the same day in one section of a single city?*

SUBWAYS

During that first afternoon on 9-11 it also became apparent to me that unless they had ordered the subway trains to stay clear of the area immediately after the first hit there just had to be a great number of casualties underground. The WTC was also a transfer area and there are at least three separate lines using separate tunnels, stacked one under the other, that stop there. But why would they clear those tracks? No high rise had ever collapsed before. New York has fires every day but the trains run until there is a foot or two of water on the tracks. And if they expected them to be the first steel frame buildings to ever fail *why weren't the fire men and cops pulled back?*

I have a friend whose South bound subway stopped at the E. 23rd St. station, about a mile from the WTC. It opened its doors and stayed there just after 10 AM (after the South Tower fell). There were no announcements, and after a bit she left the train and headed South down 6th Ave taking photos of the remaining Tower as it burned. Every photo shows both street and sidewalks filled with people all heading South. FEMA claims only 10 sidewalk deaths occurred. *Did this migration toward the towers only begin after the South Tower fell?*

CRUSHED SUBWAY

On page 156 of GEO there is a photo showing a crushed subway car under the WTC. Please notice that this tunnel wasn't flooded. Since trains do not consist of a single car, there had to be 10 cars or more in that train. At that time of day and in that area those cars are packed with each car holding well over 100 people. FEMA has never listed any casualties from the subways. However, a local fire captain told me about another train that was pierced then flooded by the rivers adjacent there. That must be the one whose tunnel was sealed with concrete plugs. Even if we disregard the second one as a fairy tale, we have a photo of the first. Later I would hear that they recalled the subways before the first collapse. *Did they recall them but leave the firemen and the cops in the dark?*

RECALL

Subway recall would be executed by stopping all trains before that station and telling all trains there or approaching that station or leaving that station to shut their doors and run like hell! Think now about my photo taking friend whose E-train was stopped that morning. But that was after the collapse. Think about this, *how could any train have been crushed if they were recalled?*

SUBWAY FATALITIES

Any columns that pierced a tunnel either in front of or through the train would have brought complete disaster resulting in crushed and torn cars, smashed bodies and maybe fire. In addition, the lower tunnels would then have been subsequently flooded from the millions of gallons pumped onto the burning rubble pile or streamed in from faults in the rock from the Hudson River which is very close. *Why has FEMA failed to list the subway fatalities?*

PIERCED TUNNELS

Two weeks later, on page 22 of the 9-28-01 edition of "The Daily News" of NYC, there was a short report that told how the WTC columns did punch through their footings and penetrated down through the thin rock layers and into the tunnels underneath. It tells of 3 foot thick concrete plugs being put at each end of the Cortland

Street tunnel. It shows a photo of this station completely filled with debris and the building's steel columns. They estimate they lost 1500 feet of lines including both ends of the Fulton Street station. Other sections were damaged but to a lesser extent and "In other sections, the roof is sagging. It will take years to repair." **All this damage and not a single casualty?**

BIN LADIN

From the first minutes of coverage Bin Ladin was the only suspect mentioned on the TV stations. By noon he had been indicted, tried and convicted by that media. When Afghanistan asked for proof of his connection to this crime they were rebuffed and then attacked. Seven months later the FBI admitted that it has zero proof! Now, it is not even a question of should we pounce on Iraq but when. *Doesn't World War III lie in that general direction?"*

PASSENGERS

Then I began to wonder about the small number of passengers on all four of those hijacked planes. They averaged out to only about 20 % of the each planes capacity. These were large birds on weekday morning coast to coast flights which are usually filled to capacity. Think hard, have you ever flown a similar trip in an empty plane? Neither have I. Nor did a half dozen other frequent fliers I questioned. Since this is a fact, *shouldn't the FBI have asked the 80% who canceled, why they did so, before we went to war with the Afgans over what the Saudis allegedly did?*

ENTRY HOLE

There is another split photo on pages 10 & 11 of GEO that clearly shows the ripped open North Tower. One can see the entry hole slashing across six floors of the high tensile steel outer columns and showing the cross section shape of the fuselage including wings and stabilizer. The fairy tale part about the raging infernos is dispelled by the two young girls on the unbroken floor where one is slumped over the severed steel stubs and the other is leaning on the remaining aluminum facade. There are at least four other survivors in that photo!

Aluminum is a great conductor of heat (aluminum heat sinks) and even were it at 150 degrees F. *it would have been too hot to touch.* So much for the heat causing the columns to lose their strength. There are also 4 other live people in the photo that can be seen. Yes, there are a couple of bon fires scattered about but nothing that you could boil water with 10 feet above the flames let alone raise the temperature of the steel high enough to seriously reduce its strength. Here's the point, *the time stamp on this photo is 0850 hours which is only 4 minutes after the hit.*

HOT FACADE?

Again on page 51 GEO there is another photo taken at 0850 hours that shows a couple of floors of people (over 30 of them) hanging out the broken windows and holding onto the aluminum facade calmly waiting for rescue that would never come. All of them will die because some crazed and evil bastards had previously mined the building to steal from us the last of our Constitution and Bill of Rights and to drive us like sheep into the WW3. *Why are we killing Arabs and not the men who did this to us?*

ISRAELIS

Shortly after noon that day, the dead and missing numbers began to decline from the start up estimate of 6,000 plus. And the number of workers reported in both buildings fell from 50,000 to 40,000. It turns out the next morning (midnight here) H'Haritz, an Israeli paper mourned the death of 4,000 Israelis who worked in the Towers. Since they never mentioned another word I guess that they were alive and had not gone to work that day. This leaves 6,000 unknown others who also took the day off. *Do you think they were all psychic?*

EMPTY?

FEMA later claimed that both buildings were almost empty because it was only 8:45 when the first plane hit. Then they tell us that the streets weren't crowded with people coming to work. They can't have it both ways! They had to be either under the buildings in the mall, in the buildings or covering the sidewalks. The WTC was the hub of the entire financial district. Each of the many surrounding buildings also had hoards of people on their way to work. The EMS people while being interviewed claimed that many blocks away from the "ground zero" there were so many bodies in the streets, that they had to drive over them while going in and out. But FEMA claims that only 10 died in the streets. *Who do you think is lying? The EMS heroes or FEMA!*

DONOVAN

FEMA also says that of all those working above the hits only four people lived. This must mean that Donovan Cowan, employed on floor 87 in the South Tower, and the last burn victim to be released 6 months later was one of those four. Despite his bosses order to stay, he left immediately after the North Tower was hit. At the 77th floors lobby he heard the PA announce that everybody should return to their offices. So he started back up and at the 88th floor the South Tower was hit and by a miracle he got out before the collapse.

16 MINUTES

However, FEMA tells us that in the 16 minutes between the hits that the top of the South Tower was completely evacuated. This despite the fact that the first eye witness from both buildings clearly stated that the bosses demanded they stay at their desks until an official pronouncement was made. Since 95% of the people always do what they are told, *who don't I believe FEMA?*

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STAIRWELLS

The next problem is that there were only three stairwells in each building and each was less than 4 feet wide. So narrow that each step can only hold a single person, when in motion, and then only if they are staggered. But FEMA claims that the lowest 70 floors of both building were successfully evacuated by these same stairs. Even in the North Tower where the firemen flooded up the stairs and while they were on the stairs nobody could descend even a step. On pages 20 & 21 GEO we see a photo taken in a stairwell showing equipment laden firemen slowly climbing the very narrow stairs. They are blurred because they are moving. We also see that a group of descending people who were forced to stand still and sideways (they are not blurred) to make room for the fireman going up. This means that no one

could take a step until over three hundred fireman slowly climbed the stairs. Please remember that in 1993 it took over 4.5 hours to empty the WTC building that was bombed and there was no fire and little smoke. **Why is FEMA lying about the number of casualties?** Considering that two out of three stairways were knocked out, this effectively prevented thousands of people from escaping.

GAWKERS

Now I freely admit that I am a world class gawker! I have been one since 1937 when my mother and father carried me five blocks to watch a Paterson department store burn. I have chased an amazing number of fires in my life and I have noticed that the bigger the fire, the bigger the crowd. Now a weekday fire of this magnitude in NYC should have been the biggest draw imaginable. A few years before I was one block north of the North tower before 8:30 AM and the sidewalks crawled with people.

10 DEAD GAWKERS

However, FEMA has the gall to tell us that only ten gawkers died. Two 100 ton planes get torn to pieces while ripping out six floors and passing completely through a building 1000 feet above the street raining down chunks of plane concrete, steel and furniture and people over ten square blocks of streets crawling with the people who were not yet at work ... **and there were only 10 people killed?**

SOME GAWKERS

On pages 6 & 7 of GEO there is a photo of the corner of Park Row and Beekman St. and the streets that converge there are totally filled with gawkers. All eyeballs are up and almost all mouths are open. I immediately suspected that what they had just seen were the explosions that brought down the South Tower. From this corner you could look South to see the top of the Towers. This corner had to be typical of every intersection and street from which you could see the Towers. These gawkers had over an hour from the first hit to gather. **What about the huge open plazas surrounding the WTC complex?**

STARBUCKS

There is a Starbucks on this corner and the western side of that building carries a large sign (stood-off from the wall) that reads "STARBUCKS". This sign has cast a shadow on that wall. On that same curb there is also the shadow of a street sign on the T-shirt of a guy with a camera who has climbed that sign pole.

SHADOWS

These shadows were anomalous because at 10 AM. in New York City the Sun is always in the Southeast. I went into NY to Starbucks about noon a few months later and sure enough the Sun was in the South. From this I must deduce that it was, indeed, in the Southeast that morning. I sat there completely puzzled for a while and then I noticed that to the northwest there are very large, very light white buildings. The photographer who took this photo inadvertently caught two things. The expression of the gawkers from the explosion and the brilliant white flash that high explosives give off. In the daytime the light is of such short duration that the human eye cannot see it. However, when you see fireworks at night you see the white light when the mortar shell or rocket explodes and launches out the actual fireworks. Those shadows could only have been caused by the white light from large number of explosions reflecting from the white building.

POCKET PARK

On pages 152 & 153 GEO there is a photo taken of a small pocket park a long way from ground zero. Body collectors have decorated a small tree with about 30 pairs of shoes laced together and thrown into the branches. Since no EMS person has ever removed the shoes of a wounded person, 30 pairs of shoes must equal 30 barefoot people. I must conclude that these shoes were taken from the dead and hung in the tree as a marker of where they were found. **What happens now to FEMA's claim of only 10 sidewalk deaths?**

SUICIDES

On that heavily edited video, shown by CBS on 3/10/02 entitled "9-11", the firemen had set up a small control center under a section of the plaza roof. I heard a body or two smash down on that roof every minute or so! There were dozens! On page 12 of GEO there is a photo that shows 6 jumpers in the air at the same time from the same small portion of one building. FEMA claims there were only 11 suicides. **Let's see, 6 in the air above the street and dozens onto the plaza roof adds up to 11?** It must be the New World Order math!

GLOBAL HAWK

Did you hear any of the media talk about "Global Hawk"? That is the name of a very secret 20 year old project that listens to every flight through hidden cockpit microphones. If the plane has been hi-jacked, "Global Hawk" can turn the bigger planes into remote radio controlled drones by using a radio link to the plane's computer to take over complete control of all functions, including other radios and the black boxes. The plan has always been to set the hi-jacked ship down at the closest military airport where the runway has been lined with troops.

WEBSITE

Every big plane for over 20 years has had this equipment built in at the factory. Since this was developed to stop hi-jackers it should have been widely publicized. It wasn't! You must see this site, sirpeter@tiddbitsnews.com to discover the truth about this. **Could the reason for keeping this secret all these years have been to fly a plane into high profile buildings while blaming innocents?**

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STANDING ORDERS

Even if the Arabs got past the people who run "Global Hawk" how did they ever get past all the hundreds of people involved in flight control and the hundreds more who man the computerized radar which tracks every plane over 1,000 feet in altitude. Most of the planes were off their computer dictated course within minutes. of departure. The radar computer would have notified the individual flight controllers. *What happened to all these tapes?* When the plane failed to explain the course change each flight controller would have slapped the "panic" button thereby alerting all the military airports and the nearest to interception would have scrambled a fighter. Within 16 minutes of

departure from course and with no radio contact each plane should have (by standing orders) been intercepted and blown from the sky by an armed fighter if they disobeyed its pilots follow me. A few years ago, a Lear jet headed to Texas from a Florida airport. Something happened and the turned Northwest. When they didn't respond to their radio, within 15 minutes NORAD had military jets on them. Here we had four big birds off course for hours but no fighters were dispatched. ***How did the Arabs get past standing orders to the Air Force to visually inspect every suspect craft and then, without needing further orders, to take them out if they don't follow the fighter to a military airport? Why was this never explained?***

PENTAGON

This leads us to the Pentagon hit! There is a French website that shows us through media and satellite photos that the plane which hit this building left no parts behind. Even in the earliest photos from the street there is not a single plane part visible. Everyone then assumes that it tore through this building the way they tore through the Towers. However, they have an early photo that shows that only the first floor was tunneled causing the other floors to fall and that the plane never even smashed into the next ring of the building. A similar photo exists on page 69 of GEO. On pages 22 & 23 GEO there is not a trace of a crashed plane.

Unlike the the Towers, where the 21 inch outside box columns were made of thick high tensile steel 41 inches on center, the Pentagon was made of reinforced concrete. Let see! The first two planes destroyed 5 floors apiece of concrete decks and tore through a great number of high tensile steel columns with even the wings and tail penetrating the first side and then, and in at least one building the plane broke through with fuselage intact. To do this it had, to have punched through 218 feet of building.

However in the pentagon, the plane could only break through a single floor about 40 feet wide and then it failed to cross a small court yard. And it did this without leaving a single piece behind. Naturally, FEMA has pronounced this information to be a hoax. However, even the earliest published photos and videos lacked plane parts. FEMA claims that this plane compacted itself into nothing. Yes, FEMA a tiny Cessna crashed a while back and compacted itself into a 50 gallon drum size. But the frame of that plane weighed less than a ton. Here, if ratios still work, the Pentagon should have one hundred - 50 gallon drums worth of scrap aluminum and steel. ***Why this lie and what happened to the missing plane?*** This must see web site is found at http://www.asile.org/citoyens/numero13/pentagone/erreurs_en.htm

PENNSYLVANIA

And there is the Pennsylvania crash into a field. The FEMA apologizers claim that this plane scattered small pieces over 8 square miles. If this is true, then the plane was also premined with a multitude of small charges. Even a killer missile only blows away a part of the plane. And the photos from both the Pentagon and this field (found on page 75 and pages 30 & 31 of GEO seem to bare witness to this. Instead what we see is a small furrow with green grass growing in it. ***Did "Global Hawk" dump these planes in the ocean***

BOXCUTTERS

And in my mind I see a couple of slender boys holding box cutters on the passengers in each plane and I no longer believe that fairy tale. Plane passengers are hidden from view by the high seats of the plane and even an old street kid like me knows enough to wrap a sweater or jacket around your arm which immediately negates the tiny blade on a box cutter. Planes are usually loaded with professional athletes. There are Football players and wrestlers who over weigh 300 pounds who can move like cats, hockey players, soccer players, boxers, martial arts devotees, etc. See the 300 pound line backer in row 20? The first thing he would do is wet his pants laughing at the demanders. Then he would become enraged because he soiled himself. The only danger to the plane after that would be the decompression that follows because he was stuffing their heads through the windows. ***Where does that leave all the recorded phonecalls made from the cell phones on the planes?***

CUI BONO

An ancient but still valid tool for extracting the real criminal from a list of suspects is called Cui Bono (who gains). ***Did we Americans gain by losing the last of our freedom to the Patriot Act?*** We have further thinned and scattered our troops while we spend ourselves ever closer to foreclosure to that very privately owned banking corporation called the Federal Reserve. Now, we are determined to attack another Arab nation. It is only a matter of time before the Arabs realize that united they stand and divided they fall. At that time one billion Arabs will come together as one. We have been deluded into believing that hi-tech weapons will always carry the day. So too, the Romans believed their legions were undefeatable because of their hi-tech phalanx. Please remember Vietnam and although we controlled the air they still drove us out. When people are driven into a corner, sooner or later they explode.

ETHNIC CLEANSING

The Arabs are being, and have been slaughtered in Palestine by the tens of thousands. They are being hunted from cave to cave in both Afghanistan and Pakistan. They must know that Iraq will be next. ***Did the Arabs gain by this crime?*** Think hard about who the only winners from this disaster are.

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SECRET AGREEMENTS

Over a year passed before FEMA produced a list of "Dead and Missing". I believe that FEMA has hidden the true death toll by only counting the easily identifiable bodies. If this is the case there are tens of thousands of missing and the "Missing" part of that statement is a lie. I had hoped that when they did release the list that the relatives would wake up to the lie! My hopes were in vain! I now believe the rumors of secret agreements were true and that during this year they coerced most of the relatives to sign secret non disclosure agreements that limit their loved ones from public memorials. I also believe they were offered the carrot (a lot more tax free cash) and then shown the stick

(The National Security Act).

SHRAPNEL

If you are still not convinced that FEMA is telling incredible lies about the number of deaths on the surrounding streets, there are more photos in GEO. The top of pages 16 & 17 GEO show the South Tower plane approaching the buildings. On the bottom of page 16 the plane has burrowed through the whole building and we see the nose and fuselage exiting. The next photo shows the fuel bloom and an immense amount of widely scattered debris on the visible sides of the building. Some of it has been blown hundreds of yards away. The debris is of the size that the larger pieces are clearly visible although the photo was taken a great distance away. This immense amount of concrete and steel rained down on the crowded streets as did the North Tower hit 16 minutes before it. On page 56 GEO we now see the entire fuselage coming through the South Tower to crash in the street.

On page 26 of GEO the whole sky is filled with columns, and great and small chunks of concrete just blown away from the South Tower explosions. *How many thousands had escaped and then stood across the street waiting to see if friends had made it out?*

On page 29 GEO we see a wall of gray/black debris roaring down a canyon toward dozens of people running for their lives from the falling South Tower! That black wall contains hundreds of visible chunks of concrete. On pages 36 & 37 GEO are shown steel huge chunks of steel and aluminum facade. These are blocks away from "ground zero".

STREET BLOOD

On page 52 GEO are two women casualties lying on the sidewalk near the yellow curb being helped by EMS. They are obviously blocks away from the collapse. Or perhaps, this photo was taken before the collapse and they, the other gawkers and the EMS are also dead. Their blood has stayed on the sidewalk but the street is red with blood. Page 57 GEO also shows the tremendous amount of debris heading for the crowded streets from South Tower hit. *How many dead people does it take to make a street red?*

CROWDED STREET

On page 133 we see how many gawkers can pack themselves into a small section of a single street. There's about 2,000 people in this photo.

HEAT

Last, but not least, is the fact that the minor paper and plastic fires burning before the collapse then were blamed for causing the heat in the basements to go to over 1,000 degrees F. by the next day. After months of passing up the photo on page 85 GEO with a glance, I finally saw it for what it was. Here are fireman and construction men the following day looking into a hole in the rubble. The faces we see are pictures of incredibility. They are looking at something they cannot understand! And that is the brilliant white light emanating from that hole.

THERMIT

I too stared in awe at the brilliance of the white light. My first thought was, "What is Phosphorous doing burning in the basement." Then I noticed the absence of white smoke pouring out and the fact that nobody was choking. I decided it must be magnesium. But it couldn't be magnesium because there was no gray smoke either. Then the most unbelievable explanation entered my mind. There was only one possible answer. This light was caused by white hot steel that had been created by thermite!

Thermite is a simple mixture of finely ground iron rust and aluminum powder. It is extremely difficult to ignite but once lit nothing puts it out. Explosives will only scatter the powder and the only way I know to ignite it is by using a burning magnesium ribbon as a fusee. Once it ignites it reduces itself to molten iron and will also melt steel that it is in contact with. The thermite had to have been placed there in great quantities for it to be still glowing over a day later. The absolute proof is found in reports that on this same day planes that flew over the site found places where the temperatures under the rubble was over 1,000 F.

CARBONIZING

Why would any office building have thermite in the basement unless it was there to actually melt the ends of the existing steel beams to "prove" that fire melted them. It would also turn the rubble into a super hot oven which would carbonize the crushed and ground up flesh of the victims leaving no bodies and few bones to be recovered.

PRE-KNOWLEDGE

I remember seeing a video of the President "teaching" a class of kids somewhere in Florida. An aide approached and whispered in his ear that the North Tower had been hit. The aide immediately turned on his heels and left. Sixteen minutes later he again whispered in his ear and again turned around and immediately left. See page 67 GEO. Stop the presses! His Aide's abrupt departure the first time may be excused because accidents happen. But the second time tells a story. In the history of aides, there has never been a single aide who delivered devastating news and did not stand there on the balls of his feet, with his adrenaline cranked up, waiting for orders. Either this man is incurably stupid and his boss the most forgiving man on the planet or ... he delivered news that was expected.

QUESTIONS

1. *Why haven't these questions been asked by the FBI?*
2. *Do you still think that outside "terrorists" could have done this job?*







9:02 Uhr

Ende eines Wahrzeichens: Die Seismographen der Columbia University registrieren ein Erdbeben der Stärke 2, als die zentnerschweren Fassadenteile, die den Südturm getragen haben, hinabfallen und Menschen auf den umliegenden Straßen erschlagen. Doch ein letztes Mal bewährt sich das ungewöhnliche Konstruktionsprinzip des WTC: Weil das Hochhaus neben seinem tragenden Kern auch





Die letzten Sekunden: Bei ihrem Anflug auf New York ist die United-Airlines-Maschine beinahe mit zwei anderen Passagierflugzeugen kollidiert. Sie ist am 11. September 2001 in den Südturm des World Trade Centers an dessen Südostecke. Die Explosion nach dem Aufprall verwüstet sieben Etagen, doch





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flugzeugen kollidiert. Nach einer letzten Rollbewegung über den Hochhäusern von Manhattan trifft eine Boeing 767 auch den der 110 Stockwerke hohe Wolkenkratzer bleibt stehen – vorerst





Nach den Anschlägen bleiben am Broadway die Besucher weg. Theater müssen schließen. Daraufhin treffen sich Hunderte Schauspieler und Sänger am Times Square und drehen einen Werbespot für die Stadt: «Let's go on with the show»

Einen Monat später erreichen die Kurse wieder das Niveau vom Tag vor der Katastrophe.

sammenbruch des Gebäudes während Menschen aus den oberen Stockwerken stürzten, schwarzer Qualm du

133



In den Straßen herrscht binnen Minuten Chaos: Ärzte versorgen Verletzte

nes Notfallzentrum zwar ideal ausgestattet ist, aber gefährlich nahe bei dem Nordturm liegt, aus dem inzwischen Trümmer auf die Straße und die Nachbargebäude stürzen.

7 World Trade Center wird deshalb evakuiert. Giuliani und die Leiter der Feuerwehr begeben sich zum provisorischen Einsatzzentrum an der Vesey Street, der nördlichen Begrenzung des World-Trade-Center-Komplexes.

Anruf über 911: Möglicherweise ist ein Verkehrsflugzeug ins World Trade Center gekracht. (Dies ist der erste Hinweis an die Feuerwehr auf die Ursache des Großbrandes.)

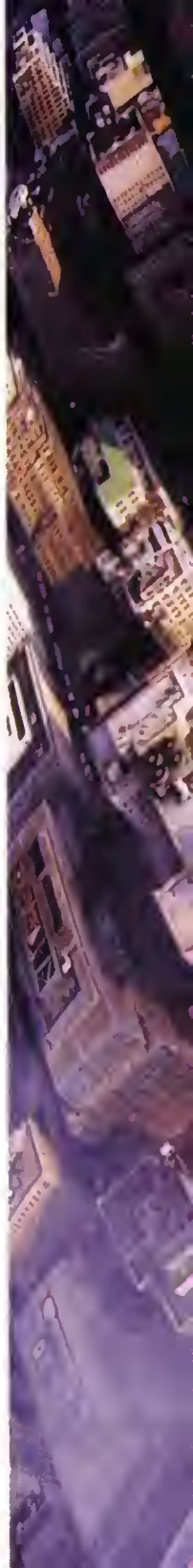
UA 175 ist noch rund 184 Kilometer vom World Trade Center entfernt.

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„What a





ite aus einem Restaurantführer für Georgia.
ein Dankesbrief an Joe Baum, den ehemaligen Be-
des Restaurants in der 107. Etage des Nordturms:
abe mich bei Ihnen gefühlt, als wäre ich gestorben
den Himmel gekommen“, hatte ein Gast geschrie-
Der Himmel, stelle ich mir vor, ist nicht weit entfernt
07. Stock.“

a 325 000 Kubikmeter Beton sind in den Zwillings-
verbaut worden. Die Gewalt des Einsturzes hat Tau-
Tonnen Beton zu Pulver zerrieben, das sich in einer
wolke über eine Fläche von mehr als zehn Quadrat-
metern ausgebreitet hat. Alle Fenster und Wände im
eis von 3000 Metern um Ground Zero sind mit einer
grauen Staubschicht bedeckt, und schon bald wer-
diesen Untergrund die ersten Botschaften geschrie-
von Helfern, von Passanten, von früheren Bewohnern
user. Es sind Nachrichten an Freunde und Verwandte
families here are o.k.“), Vermisstenmeldungen
von Cherry call home“), Abschiedsworte („We miss
Richie Allen“), Racheschwüre („Our tears will be
blood!“) und Nachrufe („God be with you Dana -
Mom“). Hunderte von Botschaften. In den Staub ge-
hen bis zum nächsten Regen.

tragen bequeme Schuhe, sind mit Wasserflaschen und
telefonen ausgerüstet und einem Stadtplan von Man-
Sie gehen zum St. Vincent's Manhattan Hospital in
th Street, zum Bellevue Hospital am East River, zum
York University Medical Center. Sie laufen kreuz und
durch die Stadt, auf der Suche nach ihren Ehegatten,
estern, Söhnen, Töchtern, die sich während des Zusam-
bruchs in einem der Zwillingstürme aufgehalten haben.
dem University Medical Center an der First Avenue
Naomi Konovitch jedem, der einen Kittel trägt, ein
ihres Schwagers. Andrew Zucker arbeitete als Anwalt
ne Kanzlei im World Trade Center. Am 11. Septem-
er ist auf dem Flugblatt zu lesen, das Naomi Konovitch
lt, trug der 27-Jährige Khakihosen, ein Polohemd, brau-
gelschuhe und das *tzitzit*, ein Gewand der orthodoxen
„Vielleicht ist ja noch Hoffnung“, sagt Naomi Kono-
„Wenn du nicht fragst, erfährst du auch nichts.“
Medical Center wissen sie nichts von Andrew Zucker.
acht sich auf zum nächsten Krankenhaus.

e texanische Firma, die 1170 Radiosender im ganzen
besitzt, veröffentlicht eine Liste mit 150 Songs, die
gründen der Pietät vorerst nicht mehr gespielt werden
soll. Unter den Liedern sind „Blow up the outside world“
er Gruppe Soundgarden und „You dropped a bomb on
von der Gap Band. Auch Louis Armstrongs „What a
erful world“ wird nicht mehr gesendet.



zwängen. Sie tragen auf ihren Köpfen Infrarot-Kameras und Mikrofone, sodass ihre Führer erfahren können, ob noch irgendwo Leben regt. Nach wie vor liegt feiner Staub in der Luft, und alle paar Stunden müssen die Schnauzen ausgewaschen werden.

Einmal, wenn einer der Helfer meint, ein Lebewesen entdeckt zu haben, hebt er die Hand; dann legen alle die Hände beiseite, und die Generatoren werden abgestellt.

Stille horchen die Retter dann in den Trümmerberg. Seit Mittwochmittag, dem Tag nach der Katastrophe, haben sie keinen Überlebenden mehr gefunden. „Wir graben durch 100 Stockwerke“, sagt einer der Männer, „um zu versuchen, die da oben gearbeitet haben.“

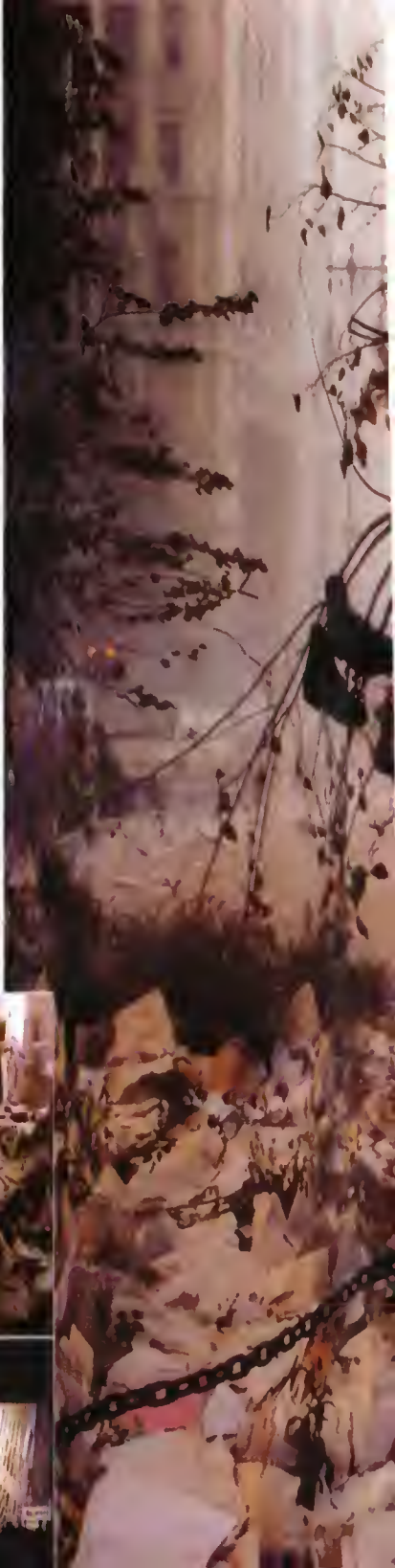
„Für das, was wir hier erleben, gibt es kein Wort im Wörterbuch“, sagt Bob Price, ein Frontladerfahrer. „Die Leute müssen sich eines ausdenken müssen, und ich hoffe, es gelingt zu buchstabieren sein, denn die Menschen werden noch lange Zeit versuchen, sich zu erklären, was hier gefallen ist.“

Mer wieder gibt es Gerüchte. Verschüttete hätten sich Mobiltelefon gemeldet. Menschen, die in diesen Tagen über Manhattan ihr Gerät einschalten, werden häufig von ihrer Telefongesellschaft angerufen. Denn die Signale der Geräte lassen sich durch Funkortung lokalisieren und damit womöglich auch Vermisste.

Am frühen Nachts meldet sich Sugeil Mejia aus New Jersey, 36. Revier in Greenwich Village und gibt an, ihr Mann, ein Polizist, habe sie angerufen und mitgeteilt, er sei mit mehreren Überlebenden unter den Trümmern des Nordturses eingeschlossen.

Innerhalb von Minuten verbreitet sich diese Nachricht über Manhattan. Hoffnung setzt auf bei Suchmannschaften und Angehörigen in der gesamten Stadt, im ganzen Land. Sie ziehen los, um an der von Sugeil Mejia angegebenen Stelle zu graben. Sie suchen die halbe Stadt, bis Polizeidetektive die Telefonprotokolle der Frau überprüfen und feststellen, dass sie zu der angegebenen Zeit gar keinen Anruf von Ground Zero erhalten hat. Die Frau wird verhaftet.

Atlantic City, zweieinhalb Autostunden südlich





s »Wall Street Journal«, nur wenige Blocks vom WTC, ist verwüstet, während in einem Laden an Ground Zero Hemden noch gestan

en der 50 Staaten und der Hauptstadt Washington, in der Glücksspielstadt zur Wahl der neuen Miss America versammelt haben. Doch nun gibt es Stimmen, die sagen, man solle die Veranstaltung absagen, zum ersten Mal in der 80-jährigen Geschichte des Wettbewerbs.

Organisatoren haben die Kandidatinnen gebeten, Argumente pro und contra auszutauschen und dann zu entscheiden. „Die meisten von uns wollen nach Hause gehen und bei der Familie sein“, sagt Miss Michigan. „Wir wollen das Ganze absagen.“

Miss Virginia ist anderer Meinung. „Das ist es doch gerade, was die Terroristen wollen: unser Leben in Unordnung zu bringen“, sagt die 21-Jährige. „Ich finde, gerade weil wir unseren Respekt erweisen wollen, sollten wir weitermachen.“

Die Abstimmung geht 34 zu 17 aus – fürs Weitermachen. Die meisten meinen, die Wahl sei ohnehin schon gelaufen. In New York wird gewonnen. Denn schon früher haben Schönheitsköniginnen aus Staaten, die von Katastrophen betroffen waren, am Ende auf dem Treppchen ganz anders gestanden: 1992 gewann Miss Florida, nachdem der Staat von Andrew in ihrem Staat Milliarden Schäden angebracht hatte; 1995 wurde Miss Oklahoma zur schönsten Frau Amerikas gekürt, fünf Monate nach dem verheerenden Bombenanschlag auf einen Behördenbau in Oklahoma City.

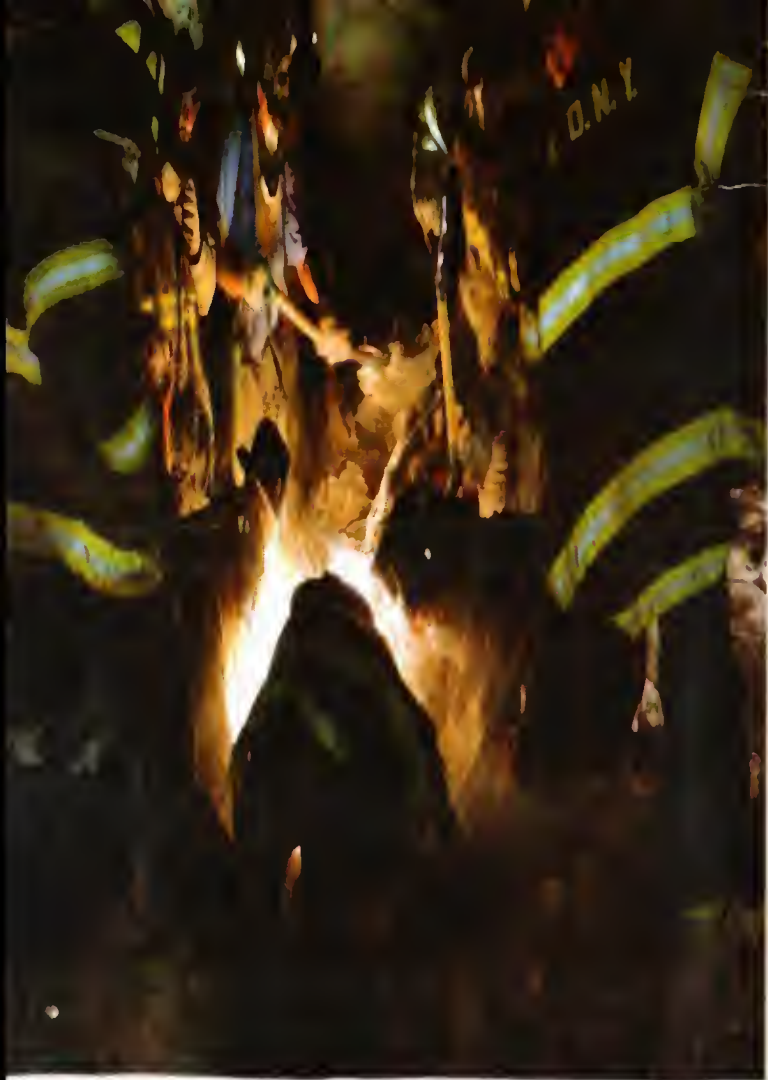
Michelle Cho trägt auf ihrem Rücken ein Drachen-Tattoo, Nicole Reed auf ihrem rechten großen Zeh ein Spinnentattoo, Eric Bennett auf seiner rechten Schulter eine Bulldogge, Helen Supinski hat eine kleine Lücke zwischen ihren oberen Schneidezähnen, Rosa Julia Gonzalez einen Tätowierungsfleck auf ihrer linken Wange, und in Nancy Ehering ist der Name „Nick“ graviert.

Alle werden seit Dienstag vermisst und von Freunden und Angehörigen gesucht – mit selbstgedruckten Flugblätter auf Plakatwänden und U-Bahn-Fliesen kleben, an den Fenstern von Bussen und Schnellimbissbuden Lichtmasten und Verkehrsschildern hängen, an Telefonbooths und Schwarzen Brettern. Und an der Ecke 26th Street und Lexington Avenue.

„Jedem der *flyers* zu sehen. Meistens von jungen Männern, lachend, vital, aufgeregt, häufig bei besonderen Anlässen – eine Hochzeit im Hochzeitskleid







GEOEPOCHE 85

erbliebenen werden immer sagen: „Warum nicht
Dollar mehr ausgeben und noch ein weiteres Fund-
amentieren – es könnte ja von Joe sein.“

In früheren Katastrophen wird möglicherweise eine
Grenzlinie eingeführt. Zum Beispiel: Ritzteile, die
ein halbes Kilo wiegen, werden untersucht, ob
sie verbrannt.

In fünf Tagen dürfen alle Anwohner, die aus ihren
Häusern im Südwesten Manhattans abgezogen werden

Damals wurde die Schutzwand mit
insgesamt 3000 Stahlfäden, so
genannten tiebacks, im Felsgrund
außerhalb der Fundamente veran-
kert. Als die Fundamente fertig be-
tonnt waren, wurden die Seile ge-
kloppt. Daniel Hahn: „Jetzt werden
wir Geröll abtragen, Seile spannen,
dann die nächste Schicht abtragen
und wieder Seile spannen.“ Zur
zusätzlichen Stabilisierung wollen



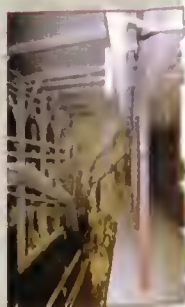


erbliebenen werden immer sagen: warum nicht Dollar mehr ausgeben und noch ein weiteres Fundamentieren – es könnte ja von Joe sein.“

In früheren Katastrophen wird möglicherweise eine Grenze eingeführt. Zum Beispiel: Körperteile, die ein halbes Kilo wiegen, werden untersucht, alle verbrannt.

In fünf Tagen dürfen alle Anwohner, die aus ihren Häusern im Südwesten Manhattans evakuiert wurden, wieder zurück in ihre Wohnungen. In drei Kilometern Entfernung müssen sie sich sammeln und Masken anle-

Damals wurde die Schutzwand mit insgesamt 3600 Stahlseilen, so genannten tiebacks, im Felsgrund außerhalb der Fundamente verankert. Als die Fundamente fertig betoniert waren, wurden die Seile gekappt. Daniel Hahn: „Jetzt werden wir Geröll abtragen, Seile spannen, dann die nächste Schicht abtragen und wieder Seile spannen.“ Zur zusätzlichen Stabilisierung wollen die Ingenieure den Tunnel der U-Bahnlinien 1 und 9 westlich der Wanne voll Beton pumpen.



Trümmer um U-Bahnhof Cortland Street



Die letzten Sekunden: Bei ihrem Anflug auf New York ist die United-Airlines-Maschine beinahe mit zwei anderen Passagierflugzeugen kollidiert. Am 11. September 2001 ist die Maschine in den Südturm des World Trade Centers an dessen Südostecke. Die Explosion nach dem Aufprall verwüstet sieben Etagen, doch





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Begegnung im
30. Stock: In dem
auf 50 Grad aufgeheiz-
ten Treppenschacht
des Nordturms treffen
Flüchtende von oben
auf Feuerwehrmänner
von unten. Gut eine
Stunde lang werden die
Retter mit ihrer 45 Kilo
schweren Ausrüstung
für den Aufstieg zum
36. Stock brauchen, wo
das Feuer wütet.
Mehr als 350 Brand-
kämpfer stürmen in
wenigen Minuten die
Hilfswilligen hin-
auf. Nur wenige
werden den Einsatz
überleben







9 Uhr Das Unvorstellbare geschieht: 56 Minuten lang hat der stark beschädigte Südturm des World Trade Centers dem 1000 Grad heißen Inferno standgehalten, doch nun knickt der obere Teil et auf Höhe des 80. Stockwerks ein. Die in der Hitze weich gewordenen Stahstützen und -träger geben hier nach und krachen zusammen mit der rund 200 Tonnen schweren Betondecke auf das darunter lie Geschoss. Eine Kettenreaktion beginnt – die oben zusammenbrechenden Etagen reißen die unteren



Ortes Chankaville, Pennsylvania, eine Boeing 757 in ein Waldstück ein. Auch dieser Jet, United Airlines
93, ist entführt worden und hat ebenfalls Kurs auf Washington genommen. Doch bevor die Terroristen
Flugzeug womöglich ins Weiße Haus stürzen konnten, wurden sie offenbar von couragierten Passagieren
geblockt, die per Telefon von den Anschlägen in New York und Washington erfahren hatten.









Captain Jonas von der Ladder Company 6 hat den Einschlag der zweiten Boeing aus der Lobby von 1 World Trade Center beobachtet. „Sie wollen uns töten!“, ruft er.

Dann erhält er die Order, über Treppenhaus B nach oben zu steigen. Er schätzt, dass der Brand sich inzwischen bis zum 80. Stockwerk hinuntergefressen hat. 80 Stockwerke zu Fuß, mit 45 Kilogramm Ausrüstung, in einem 50 Grad heißen Treppenhaus – auch der Besttrainierte seiner Männer wird mindestens 50 Minuten bis nach oben brauchen. Damit seine Leute nicht vorzeitig erschöpft sind, lässt Jonas sie alle acht bis zehn Stockwerke rasten.

Für Jurij Kiriltschenko könnte es die Story seines Lebens werden. Sein Büroleiter hat den Radioreporter der russischen Agentur ITAR-Tass über den ersten Crash ins World Trade Center informiert. Kiriltschenko ist aus dem Büro im Rockefeller Center genannt und mit dem Minivan von ITAR-



56 GEOEPOCHÉ



Der zweite Angriff:
Im Pilotensessel der Boeing 767 sitzt vermutlich der 23-jährige Marwan al-Schahi. Zielgenau steuert er sie auf den südlichen Turm zu, trifft ihn zwischen dem 80. und dem 86. Stockwerk. Für einen Sekundenbruchteil ist die Nase der Maschine zu sehen (ganz links), die den Büroriesen komplett durchschlagen hat – dann ergießt sich ein Feuerregen auf die Straßen

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Als die Boeing 757 der American Airlines sich in die Südwes... des US-Verte... gungsminis... bohrt, sterb... an Bord 64... schen. Mehr... 100 komme... Büros und P... des Pentag... ums Leben



Die Abstur... der Boeing... auf einem... Shanksvil... sylvania: h... ist nicht b... welchen v... Anschlag... sagiere vo... UA 93 ver... als sie ihre... führer ang... und die M... dabei abst



Als die Boeing 757 der American Airlines sich in die Südwes... des US-Vert... gungsminis... bohrt, sterb... an Bord 64... schen. Mehr... 100 komme... Büros und F... des Pentag... ums Leben



Die Abstur... der Boeing... auf einem... Shanksvill... sylvania: ... ist nicht b... welchen v... Anschlag... sagiere v... UA 93 ver... als sie ihr... führer ang... und die M... dabei abs...



*Der nördliche Zwillingssturm, wenige Minuten nach dem Einschlag.
Innen wüten die Flammen, Menschen lehnen sich aus den nur 48 Zentimeter
breiten Fenstern und hoffen auf Hilfe aus der Luft*

51



67

FOREWORD

In October of '92 I received a large size, full color, glossy, 180 page government publication called *America At The Threshold*. It was sent to me because I had responded a few years before to a NASA solicitation for ideas for space. My best guess is that they originally queried me because I am both a patented inventor and a past member of the high IQ society known as Mensa. While reading the book, I stumbled across my name printed smack dab in the middle of page A-51. It was there because at least one of my ideas had passed the serial scrutiny of a number of special committees of judges. By this time, however, I had become a confirmed skeptic and had ceased to believe in NASA and the CIA, and I was getting mighty suspicious of apple pie Americanism.

Bill Kaysing's book *We Never Went To The Moon* fine-tuned my suspicions of the Moon landings by pointing out things I had missed. For example, the astronauts' boots left deep impressions in the soft dust, but the Lunar Landers left no craters nor did they sink into it. Thousands of photos taken on each of the missions never showed the millions of stars that must be brilliantly visible on the airless Moon.

I also realized that much of the \$40-billion cost for this production had probably been ferreted away, either squandered in the Vietnam "police action" and in the CIA's "secret war" in Laos, or siphoned off to fill the back pockets of the producers. NASA's *America At The Threshold* is cover-to-cover propaganda about "Project Outreach" which I was horrified to discover is NASA's grab for our grandchildren's wallets ostensibly to produce a trillion-dollar MARTIAN HOAX that can bankrupt our already debt-plagued country.

For almost five months my erstwhile publisher constantly questioned NASA. If they hadn't known about this book before, they sure knew then. The 25th (silver) anniversary of the safe return of the crew of the first Moon landing (Apollo 11) came and went without the expected NASA hoopla and propaganda. Instead, the usually unapproachable Apollo astronauts began a series of TV and radio show appearances. I directly attribute this to my book and this man's activities. Unfortunately, he did everything but print the book.

In a prosecutorial mode therefore, I accuse NASA, the CIA, and whatever super-secret group that controls the shadow government of these United States of fraud on the grandest scale imaginable, of murder by arson, and of larceny of over \$40 billion in conjunction with the Apollo program that allegedly landed men on the Moon. I also accuse them of violating a federal law against lobbying by government-funded entities and of serial murder of low-level NASA employees, witnesses, and other citizens who happened to be in the wrong

place at the wrong time. Such accusations seem incredible because none of us ever want to believe our governmental father is deceiving us. However, by the end of this book, even the most trusting reader will have no doubt that NASA MOONED AMERICA !

Note: Since I published, some of my readers have gone to great trouble and expense to teach me about the Federal Reserve hoax and the hidden controllers of the world's economy, money, and power. I must now admit that the Apollo hoax is to the Federal Reserve hoax as a firecracker is to an A-bomb.

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1 FX PICTURES

I remember watching the first astronauts land on the Moon and wondering why the TV pictures were so murky. We watched two blurry white ghosts, who did little or nothing while they lurked in the shadow of the Lunar Lander. NASA seemed to have lost 100 years of photographic progress. It was boring, but I believed! During the next few years I caught glimpses of subsequent missions as they flashed in color upon my TV screen, and I believed. The pictures improved with each mission and toward the end of the Apollo program the Moon buggy tore up the Moon's surface while NASA began to talk up a Martian adventure. I still believed in apple pie, the CIA, and NASA.

A few years later I saw the movie "Capricorn One". Its plot involved a CIA hoax about a manned Mars landing. Did I relate that story to our Moon missions? Nah! I still believed in NASA and the CIA. Years later, watching a TV show, I thought I saw the Moon flag ripple on the airless Moon. The worm of suspicion slid into my system.

I then began watching NASA film clips very closely and with less emotion. As those rose-colored glasses slipped lower on my nose I began to notice flaws in the pictures. The astronauts and their backpacks weighed less than 75 pounds on the Moon, yet they left deep footprints in the Moon dust and gravel. The blast of a rocket engine that lowered the 33,000 pound LEM (lander) to the Moon's surface left no crater. And apparently it didn't even blow away the dust beneath the foot pads. Strange! Here on Earth clear footprints usually require some type of wetting agent. There is no wet on the Moon!

Recently I read MOONGATE by William Brian and discovered that the flag actually did ripple during the Apollo 14 flag salute ceremony. That author procured that film clip in 1980 from movie newsreels in Hollywood.

When the Rover spun its wheels, the dirt and gravel sprayed backwards as it would here on Earth. But, in spite of the Moon's much lighter gravity, the dirt hit the surface just about as fast as it would here on Earth. The only tangible proof that we landed on the Moon were the pictures and 840 pounds of Moon rocks. The rocks, without the corroboration of photos, are meaningless, because they could have easily have been fabricated in NASA labs using high temperatures and pressures. I have been told that Werner Von Braun retrieved two cases of rocks using a U.S. Navy ship in the Antarctic years before the Apollo missions. The shipping labels on the cases said "NASA, Houston, Texas".

I began to closely examine every NASA picture that came my way and discovered that almost every picture or TV tape released to the public is flawed in some respect. All the pictures in this book have been published previously. The still pictures were taken with Hasselblads at that time the world's finest camera. As you will shortly see for yourself, they do not ring true whether black and white or color. I had to ask myself, "Why would anyone fake pictures of an event that actually happened?"

That's why I refer to them as "FX" pictures. In movie lore, FX stands for special effects. Where Hollywood employs the best technicians to create magnificently authentic-looking fantasies, apparently NASA employed amateurs who attempted to recreate the brilliant sunlight on the Moon by using spotlights in a dark studio. Many of the pictures have diverging or converging shadows which indicate two or more spotlights. The Sun throws only parallel shadows on Earth or on the Moon.

If you look at the backgrounds of most NASA pictures, there is a relatively sharp transition line where anything beyond becomes smooth and featureless. This is a sure sign of a grade Z studio backdrop. Every time the American flag is shown there is a great deal of light on it, even if it is on the shadow side of the Lunar Lander. Also, NASA never filmed either stars or planets. The reason is simple: before the era of computer enhancement the stars would have been impossible to fake accurately enough to fool the world's amateur astronomers.

The original TV pictures we saw were photographic horrors because the astronauts looked like ghosts. Why? Apparently the government-cleared TV cameramen filmed a magnified TV screen. In fact, as you will subsequently learn, there were no live TV transmissions during Apollo 11 & 12. The pictures were intentionally blurred to make us believe that the simulations we saw were real. Note: The pictures reproduced in this book include the date and the NASA number of the picture whenever possible so that you may order them directly from NASA if you wish.

NASA is now preparing to take us to Mars the same way they took us to the Moon. This time a small cadre of computer experts will astound us with photos created by the new digitized computer graphics which didn't exist in 1969. Next time we will have no way of determining the truth.

This new epic is called "Project Outreach" and it will feature new space heroes who will struggle to overcome all obstacles in our one-country race for Mars. The first segments of this serial, which we will be able to watch in the comfort of our living rooms, will show the construction of a permanent space base between Earth and the Moon, and the struggle will be against the cold and pitiless vacuum of space.

Next the astronauts will risk life and limb building the first base on the Moon. It will end with a successful Mars walk and will be the greatest made-for-TV movie ever. The budget — paid by us taxpayers — will be over a trillion dollars stretched out over a decade.

People reading this book have found many other anomalies in these and other NASA photos. I even have a report that when some of the color pictures are scanned the background dots in some areas are a different color which is indicative of a composite photo using pictures made with different brands of film. I have not added to the text all of these reports because that might prevent you from discovering additional flaws yourself.

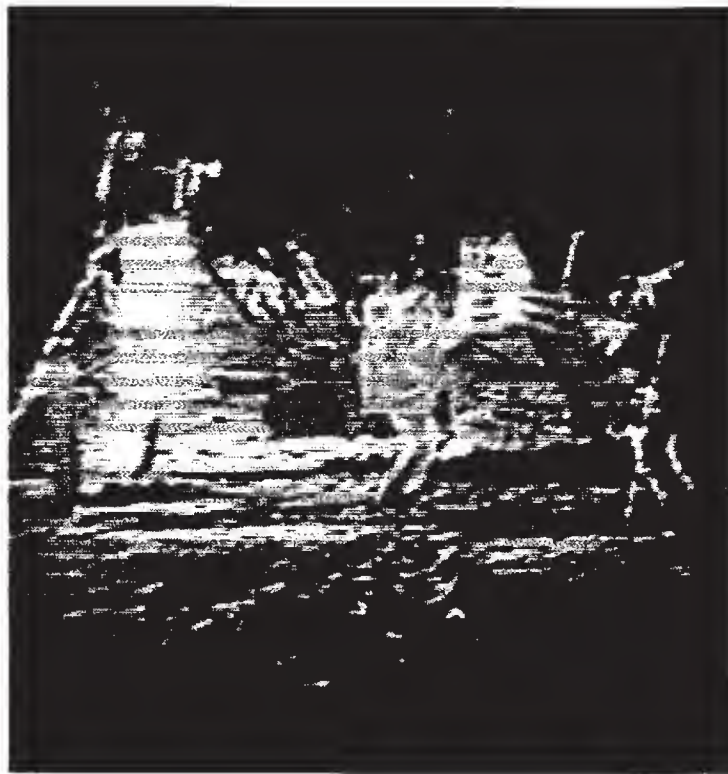


Deadwood Dick

This picture of Nat Love (Deadwood Dick) was taken in the 1870's.

Compare this with "the Apollo ghosts" below that were allegedly sent back from the Apollo 11 mission.

Both astronauts are in sunlight, but one reflects blinding white light and the other is strangely dark.



Apollo Ghosts

1.1 The Gemini Fireproof Antenna

Wally Schirra and Tom Stafford are about to be rescued after splash-down on Gemini 6A. They claim to have made a rendezvous in space with Borman and Lovell, who were flying Gemini 7. From the front of the capsule we see the base of a long fiberglass whip antenna. It is completely undamaged, and it is not retractable, as the capsule cabin contains no antenna well.

The capsules came from the factory gleaming with a silver film (which is charred by temperatures over 5000 degrees during re-entry). Anything not shielded by the forward ablative coating will burn up. None of the other Gemini capsules showed whip antennas after splash-down.

This antenna responds to frequencies not used in space and would only be of value in locating the capsule after it landed. Once the capsule was found it would have no further value. Why do NASA apologists argue that the rescue divers installed it after it was in the

water? The only logical conclusion left is that this capsule never re-entered from space but was parachuted from a CIA cargo plane.



1.2 Cover Photo

NASA's official title of the picture on the cover is "Astronaut Collecting Lunar Samples, Apollo XII". NASA contends that Pete Conrad took it of Al Bean on 10/20/69. The NASA number is AS12-49-7278.

At any one time there were only two men on the Moon. Yet — as reflected in Bean's face-plate under magnification, Conrad is carrying no camera. Conrad has his left arm straight down and his right elbow is down with his hand near his navel. We see a flat background surface with the horizon sharply delineated. On Bean's visor we see Conrad and the horizon behind him closely matching the real one. If we examine Bean's shadow, as reflected in his visor, we know by its length that he is less than 10-feet away from Conrad. Therefore, we know there is no steep hill between them. But the camera on Bean's chest is being viewed from at least 8-feet above the ground. Since there is no camera stand reflected between Bean and Conrad either a camera boom was used or the man on the Moon is 10-feet tall, invisible and took this picture.



Here is a list of other anomalies:

1. On the upper left edge are two structural pieces that slant toward the ground and seem to be holding a spotlight. The ground between that spotlight and Bean is unevenly lit, but the brightest area is around him. This is consistent with a spotlight. The ground in back of Conrad is extremely well lit which is also consistent with studio spotlights. Sunlight in a place without clouds, trees, or hills is uniform.
2. Bean is holding in his right hand a polished piece of metal tubing that has no shadow side. Was a flash used in sunlight that is 20% brighter than Earth?

3. There is a second shadow that extends from Conrad forward and to his right. It is almost 180-degrees away from his regular shadow. NASA never told us that our solar system has two suns.

I consider this picture to be one of the most flawed of NASA's Apollo Project's filmed documentation because there are so many things wrong with it. A picture is composed only of light and shadow and by definition the shadow must be on the shady side away from the light source.

1.3 The Backdrop Begins

NASA titled this photo "Apollo XVI on the Moon." Just past the object of interest the landscape becomes featureless. As in most NASA photos the background begins abruptly. NASA states that this is because of the Moon's smaller diameter. Optical perspective is not dependent on the distance to the horizon. Charles Duke was standing next to a geological marvel and never saw it. Unless, of course, the marvel we are seeing here is nothing more than an amateurish backdrop for a simulated shot taken in a secret government movie studio. One NASA apologists claims to believe that the Rover is on a cliff edge. NASA claims it chose each landing zone carefully to avoid cliffs and craters.

The large rock in the left foreground is clearly marked with a big capital "C". The bottom right corner has a crease similar to that caused by wetting a folded newspaper. This makes it a showbiz "flap" rock, which the people who work in Hollywood studios throw at visitors. They used to be made from wet newspaper and paste and showed similar flaps. Stage rocks are usually placed by stage hands over similarly lettered markers positioned by the set designer. Did NASA really carry fake boulders and stage hands onto the Moon?

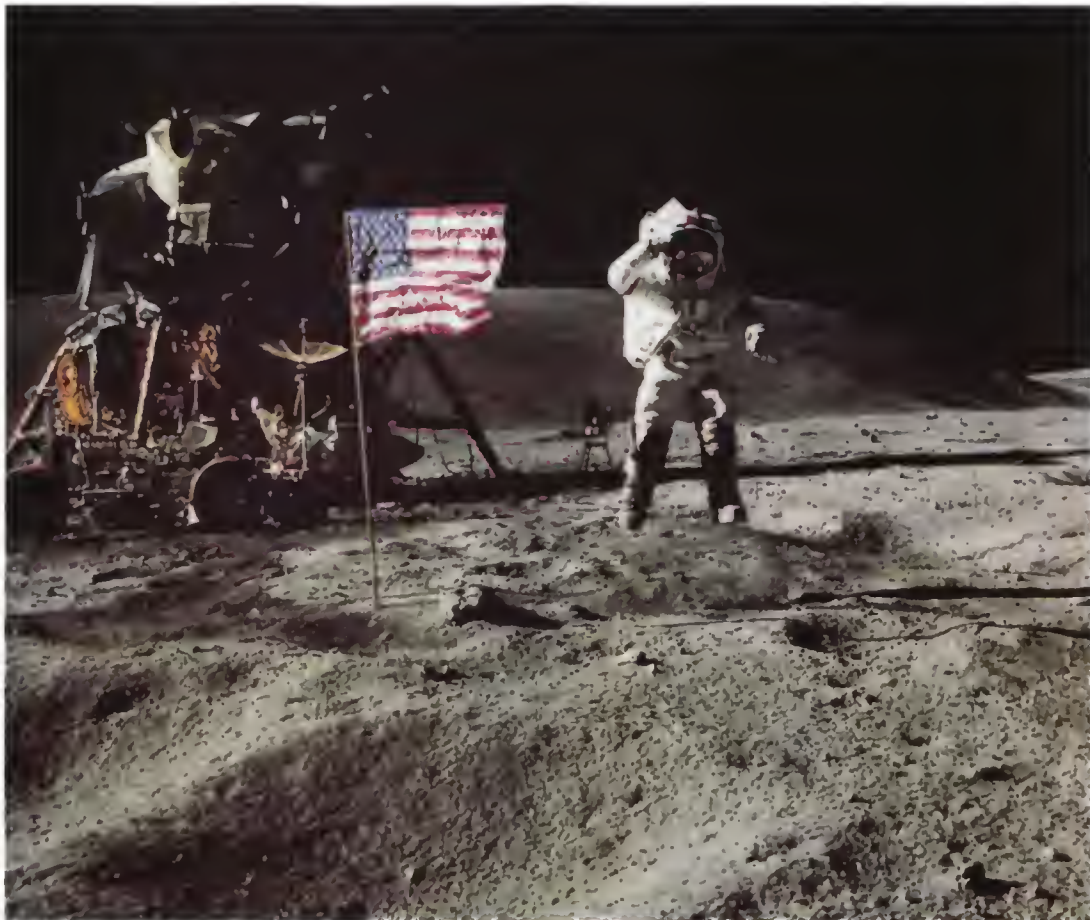
The shadows of Astronaut and the Rover are in a different direction than the rocks nearer the camera. Sunlight casts parallel shadows. I have no idea how this was accomplished. Notice also that the Rover has left tracks that show an abrupt right angle turn. Have you ever seen any vehicle that could do that? It looks like stage hands lifted up the front and dragged the Rover around to the left just before this picture was taken. Only a two wheeled hand truck can leave such a track.

Notice the sharp footprints and tire tracks. A man who has tracked various animals in the Australian desert pointed out that clear tracks in deep dust require moisture; otherwise they form only indistinct depressions. I've done some tracking of my own and I instantly knew he was right. The only clear tracks we can leave on a sand beach, no matter if the sand is fine or coarse, is near the water. There are some ultra fine man-made materials that will take a track at normal temperatures but I know of no dry natural soil here on Earth that has that property.

There can be no moisture on the Moon. Especially during the daytime when surface temperatures are about 250 degrees. Couple this with the vacuum of space (which drastically lowers the boiling point) and any water in the dirt would boil away in seconds. And yet, every picture allegedly taken on the Moon shows clear footprints.

Another anomaly is found in the fact that the upright gnomon is casting a very dark shadow right next to the "C" rock that is thinner than the diameter of the gnomon. Yet the shadow of the legs are about the same size as the legs.

The Rover has an antenna at the front end. The camera has placed range finding crosshairs on the photo. The top of the Rover's antenna was super-imposed over the second cross from the top left. If NASA landed men on the Moon why were the photos faked? On your last vacation, did you go to a studio and simulate the pictures you took?



1.4 Me And My Shadow

NASA claims this picture was also taken on the Apollo 16 mission. Notice that the surface of the hill in the background is not very bright. It is shadowed although there are no Moon clouds! That hill can only be a part of a very inferior and amateurish backdrop.

The shadow from the skinny flag pole is clearly visible at its base. If the thickness of that shadow is measured and compared with the diameter of the pole there is another reduction in size of an objects shadow. If that pole shadow is followed it terminates in the very thin shadow of the flag itself.

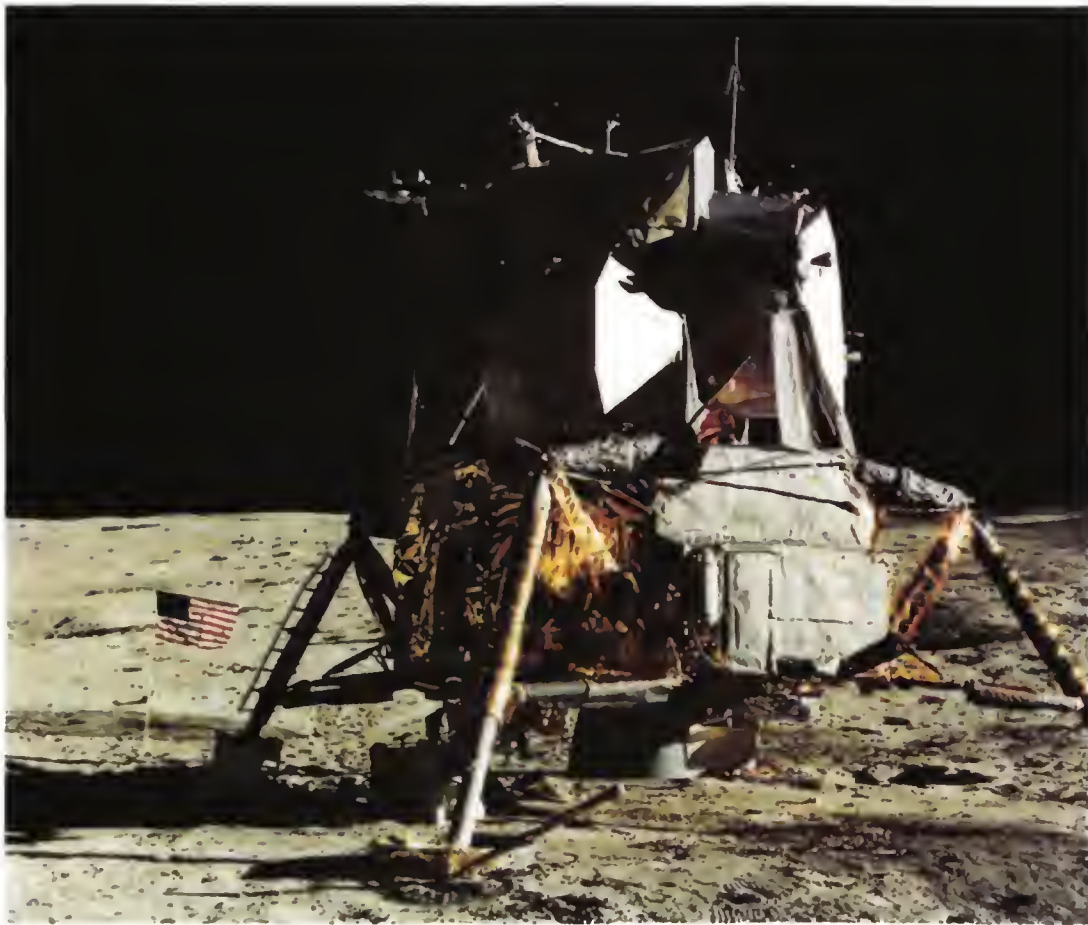
Inspection shows that the flag itself is lying away from the Sun. In the background is the LEM which is 32 feet in diameter. The LEM also has a very skinny shadow hardly thicker than the flag. Here on Earth shadows from the Sun are always proportional to the size of the object.

Nearer the foreground is a long dark line. Close inspection reveals it to be a line cord. It should lead back to the LEM but it disappears at the rock near the flag pole. If this cord was laid down on a crowded beach it would take hours before the foot traffic could bury it to this extent. There were supposed to be only two men on the Moon at any time. How many stage hands tramped about on this set to accidentally bury this line?

Since the flag is away from the Sun why is the side of it so brilliantly lit? Could there be another source of light? Did they carry power-hungry and heavy spotlights to the Moon? The LEM had only batteries! And why would you need spotlights where the Sun is 20 % brighter than here on Earth?

John Young has leaped about 18 inches in the air. We all know that white men can't jump but this is ridiculous. Under the Moon's 1/6 gravity his weight (suit included) was only 65 pounds. I am crippled and weigh over 200 pounds but I can jump 4 inches high. On the Moon this would be over 2 feet. You would think that youthful, physically fit Astronauts with "The Right Stuff" could jump higher than this.

NASA apologists keep insisting that the flag shadow is his. However, for this to be true that shadow would also have to be much fatter. But what really takes the Booby Prize, is that he has out-jumped his own shadow. Since even a gazelle can't out jump its shadow either light moves much slower on the Moon or men with "The Right Stuff" can move faster than light. However, no matter how you cut the cake, Young still has no shadow! The only solution to this problem is that he, just like that Rover antenna, was also super-imposed.



1.5 No Crater

This picture is titled "Apollo XIV on the Moon." Notice the footprints in the soft Moon dust. They extend under the LEM almost to the rocket engine's shroud. The LEM weighed almost 17 tons and had only one central rocket to decelerate this mass during landing. The engine had a thrust of 10,500 pounds, and even if the nozzle throat had a diameter of 3 feet, the exhaust pressure would have been close to 10 psi (pounds per square inch).

A common leaf blower generates about 1/2 psi yet it will blow away loose dirt and dig a crater in the ground. This monster not only landed without digging a crater but it didn't even blow away the loose dust. Without atmosphere to hinder it, can you imagine what the blast from a large rocket engine would do to dust and small rocks in the vacuum of space? Yet we find crystal clear footprints in the dust at the extreme center foreground.

The rocket shroud is in pristine condition. It's not discolored and shows no signs of having been heated. How can a rocket engine fire and not heat up the shroud? The engine

itself appears to be positioned off-center to the front left of the LEM. If anyone had dared to fire this stupid looking and ungainly machine as it descended, the eccentric position of the nozzle would have exerted an unstabilizing torque and caused the LEM to pinwheel onto the Moon's surface no matter how many tiny thrusters were fired trying to keep it vertical.

Here on Earth our fluorescent atmosphere shields us from the direct rays of the Sun and scatters photons in every direction, giving some light to even well-shadowed surfaces. The word fluorescent is not used lightly. The vacuum on the Moon eliminates these effects. Notice how well you can read the words "UNITED STATES" on the shadow side of the LEM! On page 241 of Aldrin's *Men From Earth*, he clearly states, "... with no atmosphere, there was absolutely no refracted light..." Therefore there had to be another source of light. This is consistent with other NASA photos that always show brightly lit flags and the words "UNITED STATES".

The foot pad on the extreme right disappears into the picture's border. Take a pencil and sketch in the rest of the leg and the foot pad. Then duplicate the foot pad shadow we see on the left leg. Why isn't that shadow on the page? Also, the shadow of the landing strut in the foreground has a shadow less than half its diameter.

Last and most important is that the left side of the background is brilliantly lit while the right side is dim. Is this another unreported geological miracle where reflective white dirt meets dull red dirt in a straight line? Or is this photo just another simulation?

Hero's Medal



Although a number of Russians preceded him, Alan Shepard was the first American to enter space.

NASA created a special "distinguished service medal", and President Kennedy pinned it on. Look at this man grin!

Glum Chums

Is this the look of three men who had just returned from being the first men to walk on the Moon? The Apollo 11 crew have just returned to Earth and are talking to President Nixon from quarantine. This group is definitely not a bunch of happy campers. Could they feel ashamed about something they didn't do?



1.6 The Shadow Shows

This unbelievable picture, allegedly taken from the Apollo 11 command capsule, is the apex of chicanery. Despite this, I have seen it in at least three books including Collins' *Carrying The Fire*, where he claims that the picture is of the Sea of Tranquility and shows the landing zone. The shadow in the lower left corner is supposed to be from the engine shroud whose diameter is 8.5 feet as it orbits 69 nautical miles (79 statute miles) above the Moon. A few readers have told me that this shadow's shape matches the LEM's small directional thrusters which are 6 inches in diameter. I agree!



The sun, however, has a diameter and the rays emitted from either side of it tend to cancel out sharp or definite shadows in some distance considerably less than 79 miles. Commercial airliners that are ten times larger fly a few thousand feet over our heads, yet no one ever sees a definitive shadow. Apparently we have an astronaut who casts no shadow and an engine nozzle or, worse yet, a small thruster that casts a shadow over 79 miles away. What kind of a wondrous place is this Moon of ours?

2 THE TV COVERAGE

The one word never mentioned during the very first moon landing was the word "simulation". Given the temper of the times, it might have produced full blown revolution. The simulation story is relatively recent and probably a direct response by NASA apologists to Bill Kaysing's original detective work. Why would NASA have needed to use any simulated film if they really landed on the Moon? Looking back at it now I can see that every photo was simulated, but back then we believed that it was the distance that screwed up the coverage. There had to be some reason, because we knew NASA had the finest equipment.

The pictures were dark one second and bright the next. A single picture might show one astronaut blazing with light while his buddy, 10 feet away and also in the unfiltered sunlight, would be troll black. Most of the pictures resembled those of night scenes on a "grade Z" science fiction flick where the buxom girl, whose bodice has been ripped by the aliens, keeps disappearing into the gloom just before we can get a good look.

2.1 The Blurry Pictures

The blurry white ghosts and the black trolls were busy doing unusual boring things while speaking NASA-ese at each other. "Did you put up the poop-ding on ramus?" "No, the clavrick has exceeded port 19!"

The astronauts were alternately hiding under the shadow of that ungainly and exceedingly ugly LEM, and then popping out into the sunlight to gambol around. They were blindingly white one second and dark the next, and not one picture was ever crisp. It was as if a blurry eraser had been applied.

2.2 Malicious Intent

The lousy pictures were intentional! Indeed, this was imperative so that no one could critically examine those first pictures when our critical facilities were at their peak. Once a premise is accepted by our EBS, we hardly ever re-examine it.

It was years before I suspected NASA of fraud and thought to re-examine the pictures for the first few missions. By that time they were hard to find, as TV stations preferred the clearer color shots allegedly taken on later missions. The pictures were just more obfuscation used by NASA to keep its gravy train rolling through this land that once was flowing with milk and honey.

2.3 The Big Screen

Much of the blurring was specifically induced by NASA's insistence that the TV networks had to broadcast directly from a huge TV screen in the operations room. In other words, they had to take a picture of a poorly-magnified picture! Fortunately for NASA, the major networks accepted this mandate. Also, even more fortunate, in 1969 there were no TV screens that large, no matter how much you could spend. If you wanted a bigger screen you bought an optical system that strapped onto a standard set and used mirrors and lenses to magnify the picture. The price paid was in clarity. First, there was a more than proportional loss in brilliance of the screen. And second, the picture was composed of giant grains with the inevitable result of dim blurry pictures.

Within 72 hours after the splashdown of the Apollo 11, Bantam Books in conjunction with the New York Times, had the presses running on John Noble Wilford's *We Reach The Moon*. On the inside front cover is one of those blurry pictures that show Neil Armstrong's foot about to hit the Moon. The only way to take that shot was by either having a moon photographer lying on his belly or by having a camera attached to the adjacent landing leg. Mr. Wilford, according to his book, was an insider. Here is a quote found on the publishers page.

ABOUT THE AUTHOR

JOHN NOBLE WILFORD is the leading aerospace reporter for The New York Times. He has covered every phase of the space program and every Apollo shot leading up to the epochal moon landing. *WE REACH THE MOON* is Mr. Wilford's definitive account of the incredible space achievement, from its beginnings with the faint beep-beep of Sputnik to its conclusion at the Apollo 11 splashdown.

On the frontispiece adjacent to this picture is a boxed blurb that reads:

ABOUT THE COVER PHOTOGRAPHS

Front cover photograph (NASA): left to right-Neil A. Armstrong, Michael Collins and Edwin E. Aldrin, Jr.

Inside cover photographs were taken directly from television screens, which provided the first visual documentation that man had landed on the moon. A: Neil Armstrong

steps onto the surface of the moon. B: Buzz Aldrin stands on the moon. C: First moonscape taken by man on moon. D: Aldrin and Armstrong in front of the module on the moon. E: The American flag goes up on the moon.

Now why did NASA institute this "picture-of-a-picture" policy when they easily could have popped in some coaxial connectors and jacks so that the TV crews could take copies of the broadcasts directly before optical magnification destroyed the originals? Oversight? Extreme stupidity? Or the cunning of the fox loose in the chicken house?

Why didn't the experienced TV news people show the NASA technicians how simple it would be to correct the pictures? Why did the networks let them get away with this? Why didn't they take their complaints to the public if NASA officials refused to listen? And why didn't they get direct copies of the clearer pictures which NASA must have taped as they arrived in Houston (whether such pictures were actually from the Moon or previously prepared simulations)? Even after all these years, we have never seen the clear pictures which NASA must have stored in their archives. Why has the media seldom attacked this sacred cow called NASA?

2.4 More on TV

At the time I wasn't sure whether Apollo 12 (from 11/14/69 to 11/24/69) was "live" or not because I wasn't excitedly waiting in line to see more blurry exercises. I dare say neither was anyone else. Thinking back on it, almost everybody had the same complaint -lousy pictures. According to my recent research, however, there were no live TV broadcasts of either Apollo 11 or Apollo 12. If true, this means that the incredible space achievement we watched was a ghastly, ghostly joke perpetrated by those masters of the hoax — NASA.

Richard Lewis writes about the Apollo 14 landing: "Mitchell then descended to the surface and Shepard collected a contingency sample about 25 feet from the LM. He then set up the television camera on a tripod about 100 feet away. He was careful to keep the lens away from the sun, which was what had blinded the Apollo 12 camera. Now, for the first time, there would be a televised record of man on the Moon."¹ Gee! Imagine that: a guy with "The Right Stuff", after all that training, doing a dumb thing like pointing a TV camera directly at the Sun. Hard to believe!

So, what were they showing? We must have watched simulations! Not only did I not realize that at the time; no one else I know did either. Did you? But we were only taxpaying outsiders. The bigger fools seem to be the professionals like John Wilford, The New York Times, and the TV journalists. They fell for it hook, line, and sinker.

¹p. 187, THE VOYAGES OF APOLLO, Lewis, 1974, Quadrangle

To add insult to injury the later pictures were still bad. Richard Lewis wrote about the Apollo 14 TV: "In the television pictures that came to Earth from 238,000 miles away, the explorers looked like bulky white ghosts against a black sky, cavorting about a strange landscape of dunes and craters ..." ² Sounds the same as the first pictures that the astronauts didn't take during the Apollo 11 and Apollo 12 missions.

In *Footprints on the Moon*, the authors have this to say about Armstrong as he descended the Lander's ladder. "Suddenly he was standing on the porch of Eagle, beginning tentative steps down the nine rungs of the ladder. On the way he pulled a lanyard releasing an equipment shelf and a television camera." ³ Why do I get the feeling that NASA will always tell whatever lie is handy?

This is government newspeak at its peak. When is the first picture, the first picture? The only pictures that NASA didn't dare fake (and eliminated entirely) were pictures of the stars and planets. NASA realized that millions of amateur and professional astronomers around the world would see these pictures, and if there were any discrepancies NASA's Moon cat would surely claw out from NASA's bag of tricks.

NASA did build a planetarium at their secret Mercury, Nevada base and attempted to use it for faking the stars. But it didn't work. A planetarium projector uses a bright lamp bulb inside a sphere that is pierced to allow dots of light to radiate up to the hemispherical roof of the circular building. The dome must be painted with a highly reflective paint so that the "stars" are visible.

Unfortunately for NASA, planetariums only work in the dark. One small spotlight completely destroys the effect. How could you film the astronauts and their equipment in the blazing sunlight on the Moon if you dared not light the set with arc lights?

If NASA had pretended to send the astronauts into a lunar night, the problem would have been worse, since the LEM used only batteries for power, and batteries don't run spotlights very long. Leave your headlights on for a while when your car is parked if you think I jest. And car headlights are birthday candles compared to serious spotlights. So after spending a fortune (ours) to build that planetarium, they found it was unusable. Then they were reduced to obfuscating the brilliant stars and planets of space by having the astronauts pronounce them as dim and fuzzy, and they were forced to maintain that lie down through the years. Today, a computer using enhancement and digitized graphics could fool the world's greatest field astronomer. But this is now, and that was then.

Added note: Aron Ranen of Third Wave Media who was funded by a grant that probably came from NASA, made a video that was supposed to prove that NASA did, indeed, go to the Moon. He was received with open arms by NASA, and in creating his video titled "DID WE GO?" discovered that all the audio tapes from the Apollo missions had disappeared.

²p. 188, Ibid.

³p. 206, *FOOTPRINTS ON THE MOON*, Barbour, 1969, The Associated Press

Jim Collier, before he died, told me that the plans to the Rover, the LEM, and the huge engines that powered the Apollo space craft are also missing. I wonder what the odds are against the contractors losing the prints and NASA losing both prints and tapes.

3 ASP

The asp is a small, venomous cobra-type snake found in Egypt. It is historically famous for being Cleopatra's accomplice in suicide. She chose to clasp the asp, and the little viper accommodated her by nipping her breast. Like Cleopatra, we must be suicidal too, because we have been grasping another sneaky snake to our Federal breast for over thirty years. It is also doing its aspy thing. This ASP is an acronym for "Apollo Simulation Project", which was created in 1961 and operated by the DIA (Defense Intelligence Agency) to "help" NASA with their technical problems by establishing a totally simulated moon mission.¹

ASP was a total secrecy project along the same lines as the Manhattan Project of World War II. The Manhattan Project ultimately employed some 300,000 people and hardly a word was leaked out. It served as a proving ground for security techniques and personnel manipulation on a broad-based program that to this day hasn't failed. To have gone to this much trouble that early in the program is a sure sign that NASA knew that no one was going to the Moon.

It is difficult for the average person to believe in a huge governmental conspiracy because they know the difficulty people have in keeping small secrets. They visualize a few thousand people involved and believe it is virtually impossible to keep them quiet indefinitely. Anyone who knows about Air America, the CIA-controlled largest commercial air fleet in the world, should hardly be surprised. As Bill Kaysing says, "Air America is noted for its two distinct types of Alumni: The silent and the silenced."²

The ASP base was constructed on land controlled by the (then) Atomic Energy Commission and surrounded by other military bases. Scattered throughout these arid Moon-like properties near Mercury, Nevada are super-secret site after secret site. Top level management was provided by CIA spooks. Interface personnel were hired as needed and paid top dollar and then released as necessary (with the required "never tell" NASA warnings backed by the muscle of the CIA).

Picture this: a cavern on that base with an elaborate sound stage, code named Copernicus, built and outfitted with everything necessary to simulate moon pictures. It was named by someone with little knowledge of history after a crater on the Moon. That crater was named after an early seeker of cosmic truth, Nicolaus Copernicus, so this cognomen for

¹p. 54, WE NEVER WENT TO THE MOON, Kaysing, 1981, Desert Publication

²p. 61, Ibid.

this nefarious studio is puzzling. However, there may be something in universal justice because this studio soon became "Cuss" in the base vernacular because of the problems that developed after CIA amateurs tried to make Hollywood-style FX.³

"Also installed at the "Cuss" base was the true master control center of which the so-called Mission Control and the Spacecraft Center at Houston were merely satellites or slaves. The master control of Cuss (MASCONCULL) collected all data, programmed it into a computer which then coordinated the entire moon landing simulation. Since all releases were by well-edited tape, there was no chance of a blooper. Again, the total control of news by the American corporate state set an effective precedent for the totally controlled output of MASCONCULL. From prelaunch countdown to the final descent to the ocean, all sound and video transmissions emanated from the flawless and mechanistic heart of a specially modified IBM 370-C computer."

If you don't believe that some central news agency distributes the news to the TV stations then channel surf on the major channels during the six o'clock or eleven o'clock news. More often than not, the same story is being broadcast at the same time, give or take a few ticks of the clock.

Today we would have no problem with the idea that a huge mainframe computer could control and handle an entire show of this magnitude from prerecorded tapes. Had anyone suggested the idea of deceit in 1969, people would have thought the person to be crazy. However, the Apollo serials were successfully aired, proving that an IBM 370-C computer could and did handle the show from prerecorded tapes, radio data, messages, TV pictures, etc.

The astronauts were very carefully led into the intrigue one at a time and were told only as much as was required for their mission. They could either go along or get along. If there was even a doubt as to their total loyalty to the program, the dissidents were sidetracked out of the mainstream.

After the Grissom-Chaffee-White incineration, I hardly think anyone would not have joined. One hand offered fame, money and power. The other hand offered a Federal funny farm or death. In this world there are peaceful nations, military nations, and police states. We are the only one that brags we are the first but have always been the second and are now rapidly evolving into the third.

The news and TV shows indicate every day that our government confiscates property and even "arrests" money, cars, houses, and other inanimate objects of value on the mere presumption of guilt as reparations in the drug war. This, to my mind, is martial law at its worst, but our press never mentions it to us.

³p. 62, Ibid.

Bill Kaysing, a former employee of Rocketdyne, reports that the Saturn 5 Moon rockets held a cluster of five B-1 engines instead of the more powerful, but totally unreliable, F-1 engines. Each B-1 produced a thrust of 150,000 pounds while a single F-1 produced ten times as much. Had this substitution not been made, the moon rocket "in its designed form would have weighed 6,000,000 pounds, or 3,000 tons fully loaded. This is the weight of a U.S. naval destroyer, further pointing out the total impracticality of the venture."⁴

Thus, the stripped down moon rockets that actually blasted off from Kennedy weighed about 300,000 pounds and were light enough for the five B-1's to get airborne. Here Bill Kaysing and I part company, because he believes that the astronauts were never launched. I say that they had to go with the big bird. The very danger of explosion was the reason. If a rocket had blown away on the pad then NASA would have had three live astronauts to deal with instead of three atomized corpses.

Such a type of accident would have created immense problems for everyone. Think how nervous it would have made the surviving astronauts knowing that their buddies were whacked to keep a secret? Surely one of them would have run to the press, to avoid the possibility of a similar fate in the near future. It's one thing to die in a flight or a fight. That's a bit glamorous. But to be slaughtered like a sheep is something else again. Had NASA done it any other way, the rest of the astronauts would have panicked. Remember, these were test and combat fighter pilots who took risks as often as necessary. Just as long as there was a good chance of a liftoff they would risk the ride. Also, they had been riding the B-1 engines for years during the Gemini Program.

I believe that each mission was on sequential tapes and programmed into the computer weeks before the liftoff. The immense number of simulations took months to create, and probably more time to carefully edit the simulations and weave them into the fabric of the next Apollo mission.

Once the simulations were prepared, all that was left was to provide the distraction that is vital to con-man and magician alike just before the deception begins. In this case it was the public launching at Cape Canaveral (now Cape Kennedy) that provided all the flame, fury and flash that any magician could ever ask for. It focused the attention of billions of people around the world on the launch while diverting us from the scam.

The next time the ASP strikes it will be to take us to Mars via digitized graphics and computer enhancements, and no one will be able to prove it's not real.

⁴p. 63, Ibid.

4 NASA'S HISTORY & POLITICS

A little over thirty years ago the popular new President, John Kennedy, was besieged by events completely beyond his control. Castro had taken Cuba away from a tyrant named Battista. Both the Mafia and the CIA were frothing at the mouth, the Mafia because it had lost a splendid source of casino income, and the CIA because a ragamuffin Cuban Communist and his army had taken power on an island a few miles off our coast.

Kennedy had barely settled into the oval office when the Russians followed up with their Sputnik success, and, on April 12, 1961, sent Yuri Gagarin into orbit on Vostok 1 for 108 minutes. If that wasn't enough, that same week the CIA botched the Bay of Pigs landing. Led by the CIA, a ragtag battalion of Cuban expatriots was supposed to reconquer Cuba and make it safe for democracy. Also involved were the CIA and the CIA's old World War II partners, the Mafia.

On May 25, 1961 Kennedy broke Presidential precedent and delivered a State of the Union message to a joint session of Congress. It was necessitated by racial tensions, CIA problems in Laos (later called our secret war), CIA problems with Cuba, and a whole gamut of other foreign entanglements — all involving the CIA.

Kennedy sought a national distraction. He also hoped to regain American prestige by asking Congress to drastically expand the space budget at a time when Congress was actually decreasing military spending and trying to cut back on other expenditures. Some sections of his speech are printed below.

"I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decision or marshalled the national resources for such leadership. We have never specified long-range goals on an urgent time schedule; or managed our resources and our time so as to insure their fulfillment.

Recognizing the head start obtained by the Soviets with their large rocket engines, which gave them many months of lead time, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts of our own.

For while we cannot guarantee that we will one day be first, we can guarantee that any failure to make this effort will make us last.

We take the additional risk of making it in full view of the world. But as shown by the feat of Astronaut Shepard, this very risk enhances our stature when we are successful.

But this is not merely a race. Space is open to us now. And our eagerness to share its meaning is not governed by the efforts of others. We got into space because whatever mankind must undertake, free men must fully share.

I therefore ask this Congress, above and beyond the increases I have earlier requested for space activity, to provide the funds which are needed to meet the following national goals: First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to earth. No single space project in this period will be more impressive to mankind or more important for the long-range exploration of space."

The space project became extremely political the instant Sputnik passed over our heads emitting annoying pings. The pings were perceived as the sound of danger, evoking memories of the whistles attached to World War II bombs. And just like the whistles on those bombs, the pings were psychological warfare. That was how we entered the space race.

General Eisenhower was the Supreme Commander of the Allied forces during World War II before he became our President. Under pressure fueled by Sputnik, he signed an executive order that mutated a quiet aircraft and design facility called the National Advisory Committee for Aeronautics (NACA) into what would become an insatiable monster called NASA. Ike wasn't too thrilled with the projected costs, and although he wanted our space program in civilian hands, he directed that only military test pilots be allowed to fly the coming rockets.

In January 1959 NASA began a search for the chosen few who would become our first astronauts. They scrutinized the military records of all the current test pilots and then culled one hundred and ten names from the various lists. Next, a committee whittled the list down to thirty-two and those men underwent extensive tests and interviews until only seven remained. These were the men with "The Right Stuff!"

When Republican born and bred President Eisenhower left office, he uncharacteristically tried to warn us about the military-industrial complex but we paid no attention. He gave a speech in which he said, "In the councils of government we must warn against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex."

He also should have warned us that the military-industrial complex had control of the CIA which President Harry Truman created after World War II to stave off the fatal hug of the Russian Bear. Had Truman been a closer reader of bureaucratic history, he would have known that "intelligence" organizations have a way of inevitably expanding themselves into covert actions. Then by infiltration and blackmail they become a forceful shadow over

the very government that gave them life. Witness the recent revelations concerning the transvestitism of the FBI's J. Edgar Hoover.

Shadow governments become more totalitarian year by year. Ike also might have warned us about this, and the fact that their sometime handmaidens, the academic, legal and medical professions, are also complexes that bolster and protect these entities. The story of that period and the political ramifications from our expanding cold war with the Russians is best summed up by the authors of an excellent contemporary book on NASA, *Journey to Tranquility*, printed in 1969 shortly after the Apollo 11 flight.

"The concepts of politics and war may seem to defile the beautiful picture of brilliant thinkers acting out private dreams. But it is these that gave the journey to Tranquility a troubled, uncertain and sometimes sordid passage."¹

"Some politicians built careers on it; others lined their pockets from it. Whole corporations survived on the strength of it, as tiny groups of men decided where its billions of dollars would be distributed."²

"The builders of Apollo were not technicians at work in a laboratory insulated from the world. They were soldiers in an age when technology has become warfare by other means."³

And its authors Young, Silcock, and Dunn wrote these words.

"Long before the satellite got off the ground, it became the object of political and military wrangles of the most virulent kind. When it finally reached its destination, it was no longer a triumph of science. It had been transformed from a box of technical tricks into the obsessive tool of cold-war politicians. There could have been no apter beginning to the real history of America's great space adventure."⁴

Immediately after Sputnik we were playing a losing game. We could orbit a tiny, tinned toy and they would answer with a big, heavy, mean machine. They had Cummins diesels and we had Volkswagens. Our Mercury Program popped Alan Shepard up in ballistic flight for all of 15 minutes. We hailed this, even though we could not achieve a true orbit. Their cosmonauts were breathing air at normal atmospheric pressure (14.7 psi), but ours were forced to use 100 percent oxygen at 5 psi. A shell strong enough to hold normal pressure in space was much heavier than our rockets could then lift.

The hysteria caused by Sputnik destroyed the logical developmental course we should have followed in attempting to reach the Moon. In his book, *Angle of Attack*, Mike Gray, writes how we should have flown "the X-15 to the edge of space; then build an 'X-16' that

¹p. 3, *JOURNEY TO TRANQUILITY*, Young, Silcock & Dunn, 1969, Doubleday

²p. 4, *Ibid.*

³p. 4, *Ibid.*

⁴p. 41, *Ibid.*

would fly into orbit; then an 'X-17' — a space shuttle — that would carry cargo; use the shuttle to build an orbiting space station; and then, say about 1985, depart from there on an expedition to the moon."⁵

In due time our second astronaut, Virgil Grissom, spent 16 minutes in ballistic flight. But two weeks after that the Russians upped the ante by putting a cosmonaut in orbit for over 25 hours. Six months later John Glenn finally boosted into orbit, into fame, and eventually into politics, by staying up for almost five hours. Three months after that Scott Carpenter duplicated, almost to the minute, Glenn's ride.

Two months later, on August 11 and August 12, 1962, the Russians really played hardball by sending up two cosmonauts in two separate birds. They also had the nerve to add a lot of insult to our injury by staying up for 94 hours and 71 hours respectively. Plus another first — they made a rendezvous with each other!

Things were quiet for a while, and then on May 15, 1963 we orbited for over 34 hours. A month later the Russians played "one-upmanship" and within two days sent up another two birds. The first one stayed up 119 hours, and the second carried the first woman into space, Valentina V. Tereshkova, who orbited for 71 hours.

Then rub-a-dub-dub the Soviets sent up three men in a big, big tub. Six months later we got two men up in our own washtub with the first shot of the Gemini Program. But we finally had the bit in our teeth. We were going to win that space race no matter who it killed or how much the cost.

The decision to go to the Moon was not made by President Kennedy but by NASA itself. A man named George M. Low pressured an internal NASA committee into accepting that goal.⁶ It was the tail wagging the dog that day when NASA set its own agenda to start the Apollo Program. Nothing has changed since!

Had rocket expert Wernher von Braun been allowed to fire off his rocket in the fall of 1956 we would have orbited the first satellite. However, it was politically incorrect to use former Nazi expertise. Politically, our great leaders desperately wanted the Navy to be first with an all American-made Vanguard rocket.

In the early '60s the only technicians who actually knew how to build rockets were those harvested up by the army from the German V2 Program. They were all working in Huntsville, Alabama on our missile program and miraculously, the military, an organization rarely known to give up the spoils of war, released them to NASA.

Just as its predecessor, the Nazi V2 missile project in Norway, had been taken over by the Nazi SS, ours was also held in thrall by the CIA. How this machination was accomplished and maintained is not known, but as the tiger is known by its stripes, you can bet that whenever big bucks are involved the CIA will be there. And NASA bucks are still big!

⁵p. 41, *ANGLE OF ATTACK*, Gray, 1992, Norton

⁶p. 65, *JOURNEY TO TRANQUILITY*, Young, Silcock & Dunn, 1969, Doubleday

The estimate given to Kennedy to put a man on the Moon was less than 20 billion dollars. The final cost, if tallied by the total expenditures of NASA from 1962 to 1973 was over 39 billion.⁷ This is about 200 billion 1990 dollars.

Norman Mailer said of the Apollo Project that he couldn't decide whether it was "the noblest expression of the twentieth century or the quintessential statement of our fundamental insanity."⁸

Some contemporary critics called NASA's Moon project a "Roman Circus". However, I feel that term is a little too strong. "Space Opera" has a better ring to it. First there was the terrifying quasi-cremation of three astronauts on Pad 34. Then in each of the manned missions that followed serious problems developed, but each time, in the nick of time, American astronauts and/or unsung NASA geniuses saved the day!

After the Apollo 11 landing, the American public began to ignore the subsequent landings. Congress was getting a little shaky because of the CIA's secret Laos war and the Vietnam police action, racial rioting, hippie rebellions, and student demonstrations. Our leaders were working overtime trying to throw a great war in Vietnam, but many of the kids from farm and slum, the backbone of all our previous armies, didn't want to come to the party. Tens of thousands of draft dodgers were leaving the USA for Canada and other parts unknown. The legacy of Vietnam still troubles this country.

Potential draftees seemed to know instinctively what took me another twenty years to find out — that basically Vietnam was a CIA war over who would control the worldwide distribution of heroin from the Golden Triangle.

NASA had planned the first manned landing sometime in October 1967. There were three very political reasons for this schedule. The first was that the Russians were expected to execute a Moon landing to commemorate the fiftieth anniversary of the Bolshevik Revolution. The next because 1968 represented the beginning of a period of intense solar flare activity. The last because it could affect the coming Presidential elections.⁹

The American public never quite caught space fever. Yes, they cheered on the launchings, but by Apollo 12, the second landing, even America's patriotic silent majority began to question the necessity of more Moon shots. There is a saying by the journalists who work in Washington DC that the letters "N.A.S.A." stand for "Never A Straight Answer". Despite this, NASA continues to run amuck.¹⁰ In May 1995 Congress reduced their budget to its 1961 level. I believe it was because I had spent over two years sending copies of this book to any member of Congress who seemed the least bit rebellious. That tremendous decrease in budget didn't even slow them down. I can only conclude that they are being funded directly by the Federal Reserve a group of private banks.

⁷p. 54, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

⁸p. 15, Ibid.

⁹p. 80, MISSION TO THE MOON, Kennan & Harvey, 1969, William Morrow & Co.

¹⁰p. 43, Ibid.

However, NASA's public relations department was equal to the task. They kept grinding out action scripts. The liquid oxygen storage containers on Apollo 13 exploded between here and the Moon. Apollo 14 had trouble with the LEM while landing on the Moon. On Apollo 15 they were drowning in the capsule, and Apollo 16 suffered strange vibrations. Apollo 17 saw the end of the space opera despite NASA's previous plans for many more landings.

In the meantime, we were being devastated by racial rebellions, campus riots, and a simmering anger as the poor began to realize that they paid most of the freight for all these grandiose adventures.

There was a slight surge of interest when the "Rovers" were introduced. They too soon grew boring despite the fact they were now broadcasting live color TV. Had we known at the time that each throwaway Rover costs over 12 million dollars we probably would have had more riots.

Also the end of the Apollo Program saw a shift in direction from the professed scientific toward military and commercial ventures. Harry Hurt III says it succinctly:

"Henceforth, the space agency paid only lip service to the noble theme etched on the plaque the Apollo 11 astronauts left on the moon; We came in peace for all mankind.' The first series of shuttle flights pioneered the commercialization and militarization of space, forsaking manned exploration of the solar system to concentrate on the pursuit of profits and the development of a Strategic Defense Initiative (SDI), also known as 'Star Wars.'¹¹

Perhaps Hurt's position is closer to mine, but his conclusion may change after he reads this book.

¹¹p. xii, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

5 STAR LIGHT – STAR BRIGHT

On evenings when the sky is clear, as the day's light fades from our fluorescent sky some of us look up seeking the first star of the night. At such times, those of us still young at heart remember the old litany in which we ask the gods for one small, measly little favor. We remember squinching our eyes shut real hard and telepathically broadcasting our wish to the all-knowing gods. The ancient magical chant goes like this:

Star light — star bright First star I see tonight I wish I may, I wish I might Have the wish I wish tonight

Most of us quit the practice as we got older. We quit because we noticed that very few of our wishes came true. For the few wishes that did come true, we usually soon came to regret making that particular wish in the first place; especially when it involved sex, jobs or money, all the really neat things in life. Indeed, sometimes a granted wish is so hard to get rid of that we desperately attempt to make it go away by again eliciting the same gods who granted it. To do this you have to try again, and again, and again.

By human standards, the fickle gods have a very distorted sense of humor, giving us what we ask for only when it is not what we truly deserve. Despite that fact, I have an idea why they do what they do. They sock it to us because most people wish on a star that is not a star at all. The two brightest objects in our sky are the planets Venus and Jupiter. Most people seeking to make a wish are too anxious. They usually mistake one or the other of these planets for the first "star" of the night. True, these planets are usually the first visible celestial objects, but from the viewpoint of the gods we are ignorant and greedy: ignorant for not knowing the difference and greedy for not waiting a few more minutes. Had we but waited we would have had our pick of the brightest stars: the important stars used by navigators.

Another ten minutes in the darkening night, provided we weren't legally blind, would have allowed us to see a hundred stars. Then, mere minutes later, a thousand stars would peep through in all their various shades of color and varying degrees of brightness. This, despite the fact that we live at the bottom of the atmospheric well which is laden with dust, humidity, smoke particles, and pollen. This, despite ground light pollution from house and streetlights, headlights, lighted signs, and smog, which destroy our night vision. Professional and amateur astronomers, along with a few hundred million other folks all over the world, know that the higher the elevation, the less the ground lighting; the less

the moonlight and the colder and drier the air, the more stars can be seen. In fact, tens of thousands of stars are visible to the naked eye, particularly at higher elevations on cold, dry nights.

Star watchers are entranced people who have been known to drag their kicking and screaming friends out into the dark night just to get them to stare up at the sky. I'm a dragger. I've urged many a friend out of warm sleeping bags when camped out on hunting and fishing trips. I have hauled them from warm cabins and cars on sub zero nights, after skiing all day and have even run them out of the warm cabin on my boat. Without exception, no matter how cold the night was, the raucous complaints stopped once they looked up.

The point is that in my entire life I have never met anyone who was star-blind. In fact, I had no idea that the condition even existed. Everybody I personally know (that's hundreds of people with the exception of those who are truly blind) can see the stars. Yet, after NASA pored through thousands of service records in 1961, and after multiple screenings and batteries of tests, NASA selected seven truly exceptional men for astronaut's training. Eventually one of them, Alan Shepard, was put in a tin can and blasted into a ballistic arc, barely touching what NASA called "space". "Close space" is a more accurate term.

Anyway, up he went. Despite the G's thrust on him from the cannon shell they called a Redstone rocket, Shepard reported seeing no stars. (If somebody strapped me in a tin can atop a Redstone rocket that pulled 4 G's acceleration, I think I would have seen stars!) Unbeknownst to us at the time, this was the first recorded case of star-blindness in the whole world. Alan, the poor guy, had all the "Right Stuff", but he was star-blind.

Next, NASA spent three and a half months setting up another lightweight tin can. This time Virgil Grissom duplicated the ballistic arc for the same fifteen minutes or so. When he was recovered and questioned, believe it or not, he hadn't seen any stars either. He too was star-blind. That's two out of two, and I figure the odds against that to be pushing about 10,000 to 1. To cover this obvious blemish in the superior abilities of the astronauts, NASA told us a little fabrication. Their apologists claimed that the eyes need a long time to adjust enough to see the stars in the blackness of space. That's one of the dumbest lies they ever told. We can stare at a street light and look quickly at a star and see it.

But at this stage of the game, someone in NASA must have been in a total panic. NASA's real goal, to beat the Russians to the dark side of the Moon, required men who could certainly see the stars. The only thing that NASA felt at this early stage in the space game was that this goal had been jeopardized. Astronauts with star-blindness who cannot see the stars would be unable to navigate to the dark side of the Moon. Being the first to get to the dark side was vital to American interest for both military and scientific reasons. Such reasons have somehow been almost synonymous since World War II. The military reason was that the first country to get there could build a base hidden from Earth. The scientific reason was that someday we could set up a telescope to study the stars.

Of course, a Lunar telescope could be almost as effective if it were located on the near side of the Moon. What we term a month is actually a Lunar day. Either side receives equal hours of day and night. The only advantage to be had was that the bright Earth would never block out a small section of the sky. The down side is that an alternate transmission method would be needed to communicate with Earth.

As soon as possible, NASA tinkered up another tin pot, this time bolting it on a bigger rocket. John Glenn soared into space and not only attained orbit, but also, a bit later, won a seat in the Senate. He was up for almost five hours and when snatched from the cold waters of the Atlantic Ocean he reported that he could actually see a few stars and even some constellations, indicating he was only a little bit star-blind. The odds against all three randomly chosen astronauts being star-blind to some degree had to be a million to one. This raised a scientific question: was star-blindness induced by space itself or by zero gravity?

NASA surely must have been dithered! However, being guys with the "Right Stuff, they next sent up a few more astronauts for even longer periods of time. But there was no improvement in the rate of star-blindness. Apparently, almost everybody had it. They also discovered that these poor souls were also planet-blind. On subsequent missions the various astronauts would report seeing God, flying angels, and UFOs, but the stars remained dim and fuzzy, and no one ever reported seeing a planet.

Once again, American prestige and world leadership was at stake. If the Soviets, who reported no such problem, found out that the creme de la creme of American men (those who had the most "Right Stuff) were star-blind, then by the power vested in the Domino Theory, our way of life would soon be over. We would be knocked onto the ground and stomped flat under the heel of a totalitarian military boot as demonstrated by Soviet Premier Khrushchev at the United Nations when he beat his shoe on a podium. Our democratic lifestyle would disappear from the face of the Earth: blasted away, city by city, in atomic holocausts. At least, that's what was strongly implied at the time about the Vietnam situation. And it also seemed to apply itself to this cold-war situation.

NASA tested another batch of pilots, but this time they tested them for star-blindness before they inducted them into the space program. Their research medical staff, together with an army of shrinks, devised a surefire test to check them out. The method was straightforward. It consisted in paying local scout leaders to escort the candidates into the mountains for a night of camping out and star gazing, man to man! When they came back from the trip the scout leaders pronounced them to really have "The Right Stuff."

The new group of astronauts were integrated with the old veterans, and NASA began to send them up two at a time in the Gemini Program. Hopes ran high. Still, after ten more space shots, the best that could be found were a few who could pick out a couple of fuzzy, indistinct stars. It was probably bruited about by the higher echelons of super spooks in the ASP cavern that star-blindness was extremely contagious — like chicken pox or measles.

The up side was that those few who could barely see the stars would become navigators and with luck we could still get to the dark side of the Moon before the Russians. It was dangerous, but hey, that's what men with "The Right Stuff" do best; they confound us by confronting danger.

Further testing disclosed that for some undiscoverable reason every astronaut could see the stars and the planets while he was here on Earth, but the instant he hit space this was no longer true. The disease apparently occurred only under conditions of zero gravity. It seems a cosmic joke that just as man reaches for the stars he becomes star-blind. Obviously, no cure was ever found because even today few shuttle astronauts have ever mentioned seeing the stars or planets. Did I tell you that the gods were capriciously cruel and crazy?

The New World Order was hanging on by a thread. How could the rest of the world be led to one-world citizenship by the U.S. if our men didn't have the "The Right stuff"? The Trilateral Commission probably held its collective breath and ordered an expansion of NASA's program. NASA, being the eternal optimist, readily went along for two reasons. The first was that hope springs eternal in the human breast. Secondly, it was a gravy train, a pork barrel, a veritable cornucopia of untraceable and unaccountable funds.

NASA inducted even more astronauts into its ranks. They hired thousands of people and let out billion-dollar contracts to multi-zillion dollar blue chip, multi-national corporations. After all, what is money when God, Apple Pie, the Flag and the American Way of Life were at stake? Sooner or later, NASA knew that we would get to the dark side of the Moon. This was nobility in its highest form!

During the Apollo Program, they began to regularly send astronauts out in threes. The ground computers handled the outward bound navigation to the Moon. Everyone, including the designated navigators, hoped for the best. This turned out to be okay because once they orbited the dark side, while not cured, they really could see the stars clearly enough to be able to report their position.

Before my research into this matter I initially suspected that star-blindness was CIA disinformation for the Russians. Now I don't know what to think. But I shall reprint comments the astronauts themselves made during various Apollo missions so that you can come to your own conclusions. Only two of the many books I read for this book dealt in any depth with the subject of star-blindness beyond reporting that the stars were dim and fuzzy. The first is *Carrying the Fire* by astronaut Michael Collins. The other is *For All Mankind* by Harry Hurt III who seems to be a very competent researcher. I thought about going to visit the NASA archives in Houston, but I chickened out. I believe that once NASA lets a too-curious visitor into its vaults he (I), might not find the way out again.

The government, in addition to having a very bad safety record concerning people who seem to be a tad critical, are always classifying this or that file so that they cannot

be viewed for fifty some odd years. Many government critics have complained that the (so-called) Freedom of Information Act has many capricious frustrations. Besides, I didn't want to be "accidentally" locked in one of those basement record rooms.

My first quote for this section regarding the back side of the Moon was taken from Harry Hurt's book. He states: "The moon is a natural laboratory for practical research. Its dark side is the ideal place for a giant telescope (possibly constructed out of glass blown from lunar sands) that could afford vast new glimpses into deep space astronomy."¹

That is exactly what I have been telling you. The dark side is apparently — according to NASA — the only place that star-blind people will ever be able to clearly see the stars. Never mind NASA's unconscionable goof with the original optics of the Hubbel Telescope — or their subsequent multi-million dollar repair job. Deep space telescopes may be astigmatic, but — by definition — they're hardly star blind, like the early astronauts. The serious side is that Hurt touts NASA's grandiose plans for Mars because he still believes in NASA.

It's all kind of dumb anyway. These fools talking about the dark side of the moon seem to have forgotten that the Moon has no Earth-type fluorescent atmosphere, which sends generated light flying in all directions. Light travels, or reflects, only in straight lines, and it makes absolutely no difference in space whether the Sun is shining or the Earth is shining. A highly directional instrument like a telescope would only have to have a black tube affixed to its end to protect its optics from secondary light pollution.

Buzz Aldrin was also quoted by Hurt. While riding Apollo 11 on its way to the Moon, he spoke about the spacecraft's induced rotation around its longitudinal axis. "the only consolation was the magnificence of the visual spectacle that paraded past their portals during every roll, what Aldrin calls "an incredible panorama every two minutes as the sun, moon, and Earth appeared in our windows one at a time."²

There was no mention of stars or planets. His partner, Neil Armstrong, is also quoted, ""The sky is black, you know,"... "It's a very dark sky."³

I find all this extremely difficult to understand, because I have been in the woods at night when it was closet black. On clear nights, even those with the new moon, I could travel with ease through the woods using only the light provided by the stars. I was younger then and maybe my eyes were better, but I could even read a book or newspaper by the light of the moon.

What makes this star-blindness even stranger is that it comes and goes. On the Gemini 10 mission while space walking, Collins reported, "My God, the stars are everywhere:

¹p. 319, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

²p. 108, Ibid.

³p. 173, Ibid.

above me on all sides, even below me somewhat, down there next to that obscure horizon. The stars are bright and they are steady."⁴

Then, by the time he gets to the Agena, the stars are gone. Three years later, on his way to the moon in Apollo 11, he writes, "I can't see the earth, only the black starless sky behind the Agena, ..." ⁵ And on the next page, "As I slowly cartwheel away from the Agena, I see nothing but the black sky for several seconds,..." ⁶

One hundred and fifty pages later he also writes, "What I see is disappointing for only the brightest stars are visible through the telescope, and it is difficult to recognize them when they are not accompanied by the dimmer stars,..." ⁷

That's an incredible statement. Our normal stars seen clearly through a thick atmosphere here on Earth by the naked eye were so dim in space that even a telescope fails to reveal them. All I can conclude is that star-blindness must be like malaria: you are subject to unpredictable random attacks of star blindness when you are in zero gravity. It is a good thing that this doesn't happen here on Earth. Imagine the consternation if half the people say, "See that bright star up there!" and the other half asks, "Up where?"

Nevertheless, as the Apollo 11 capsule rounded the Moon the situation changed. As reported by Harry Hurt: "Apollo 11 commander Neil Armstrong, by far the most laconic member of the crew, was also moved to comment: "Houston, it's been a real change for us. Now we are able to see the stars again and recognize constellations for the first time on the trip. The sky is filled with stars, just like nights out on Earth." ⁸

But as they rounded the Moon once again, the situation brings forth this comment from Mike Collins. "Outside my window I can see stars — and that is all. Where I know the moon to be, there is simply a black void; the moon's presence is defined solely by the absence of stars." ⁹ Naturally Collins couldn't see the stars if he were looking toward the dark side of the Moon, but if the Apollo 11 rotated, or came around the limb of the Moon, stars should be visible.

More confusion emerges as we read the following "explanatory" quote by Collins: ¹⁰

"Toward the sun nothing, nothing can be seen but its blinding disk, whereas down-sun there is simply a black void. The stars are there, but they cannot be seen because with sunlight flooding the space craft, the pupil of the eye involuntarily contracts, and the light from the stars is too dim to compete with

⁴p. 222, CARRYING THE FIRE, Collins, 1974, Ballentine Books

⁵p. 231, Ibid.

⁶p. 233, Ibid.

⁷p. 373, Ibid.

⁸p. 128, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

⁹p. 409, CARRYING THE FIRE, Collins, 1974, Ballantine Books

¹⁰p. 383, Ibid.

the reflected sunlight, as both enter the eye through the tiny aperture formed by the contracted pupil. No, to see the stars the pupil must be allowed to relax, to open wide enough to let the starlight form a visible image on the retina, and that can be done only by blocking out the sunlight." Then they rig plates over the windows and he reports, "Under these conditions the eye slowly "dark adapts" itself, and the brighter stars gradually emerge from the void."

Fourteen years later Collins wrote another book. The writing is so different from his first that one would almost think it was written by someone else (or at least another ghost writer). In it he proclaims, "My God, the stars are everywhere, even below me. They are somewhat brighter than on earth ..." ¹¹ Toward the end of that book he declares, "Never a day without sunshine, or a night without stars — fat, unblinking stars." ¹² Golly, Collins saw the light at last!

Every star is just a point of light. Even the closest stars cannot be magnified, or resolved, into a perceptible sphere by the largest of our astronomical telescopes. However, point for point, a visible star is an intensely bright shaft of light, much brighter even than the reflected sunlight from the Moon. As you may know, you can see the Moon in the daytime, when it's invisible to all who don't know the secret. All you have to know is exactly where to look, and simply sight it through a tube made out of your hands. I have been told that stars can be seen in the daytime by making a long black paper tube and then sighting through it. I have also read that stars are also visible from mine shafts and deep wells during the day.

Unfortunately, Apollo 11 was not the only mission during which star-blindness was a problem. Hurt reports this about the Apollo 14 mission, "The astronauts had a hard time seeing the stars even with the help of a special 'monocular' (half a binocular) used to supplement the scanning telescope and the sextant. Due to the absence of an atmosphere to refract and filter light, the stars do not twinkle in cislunar space. Rather, as Stu Roosa puts it, "The stars look like little points of light or fuzzy little dots." ¹³

On that same mission Roosa's crew-mate Ed Mitchell got into the act. "It's a very eerie feeling. You suddenly start to recognize that, yeah, you're in deep space, that the planets are just that, planets, and that you're not really connected to anything any more, that you are floating through this deep black void." ¹⁴

One of pilot Stu Roosa's jobs, as his partners descended and traipsed about on the Moon, was to take photos of the dark side of the Moon for mapping purposes while he orbited it. He reports, "That dim light photography was very complicated because you had to do it in total blackness, the blackest you can ever put a human being in without closing

¹¹p. 100, LIFTOFF, Collins, 1988, Grove Press

¹²p. 266, Ibid.

¹³p. 116, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

¹⁴p. 78, Ibid.

him in an absolute black room. You have no earth light, you have no sunlight, you have no reflected light bending the corners anywhere. It is black-black."¹⁵

What has me perplexed is that he is now talking about mapping photos he took of the dark side of the Moon. If it was that dark how did he get the pictures? His film is apparently fast enough to take pictures of a black body but not fast enough to see a star?

And Gene Cernan on the Apollo 17 also talked about his star-blindness. Hurt wrote, "When the sunlight comes through the blackness of space, it's black. I didn't say it's dark, I said black. So black you can't even conceive how black it is in your mind. The sunlight doesn't strike on anything, so all you see is black."¹⁶

No mention of stars, not even dim and fuzzy ones; no mention of planets either. I began to wonder why NASA subsequently put up the faulty Hubbel telescope if all these Apollo astronauts were really telling the truth. Could a telescope catch star-blindness? Then I thought of a superb super spook reason. Suppose the Hubbel was built so the CIA could look not up at the stars but down on Earth? They could then spy on the enemies of our state day and night. Enemies like you and me. Seems to me that the wide-angle lens included with the package is only useful when looking at the Earth. Recently I found out that Aldrin claims that as early as 1966 the CIA had a fleet of, at least, eight recon satellites equipped with telescopes called "Keyholes".¹⁷

Someday I wish that some Earthbound astronomer would take a quick peek at the repaired Hubbel during the day, when it's passing over his head. Like the monkey who was locked in a room by a psychologist watching through the keyhole to see what he'd do, I suspect that the Hubbel monkey might be found to be looking back at him.

To put the original disclaimer to the dim and fuzzy stars is Yuri Gagarin, the first Russian cosmonaut, who says of his flight, "Astonishingly bright cold stars could be seen through the windows."¹⁸

And then the last words are from Ghermin Titov, the Russian cosmonaut who had the first long stay in space (17 orbits). "Vostok II plunged with a rush into the inky blackness of the planet's shadow, and as my eyes quickly adapted to the change I stared in wonder at huge stars that glittered like diamonds."¹⁹

This leads inexorably to a final question: why lie? NASA always claimed that mankind had a universal urge to explore. Indeed the biggest reason for its existence was to advance science. The astronauts eventually came to consider themselves "scientists". Since science is the advancement of knowledge so that myth and false beliefs may be dispelled, why lie?

¹⁵p. 227, Ibid.

¹⁶p. 77, Ibid.

¹⁷p. 150, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

¹⁸p. 4, SURVIVAL IN SPACE, Gagarin & Lebedev, 1969, Frederick A. Praeger

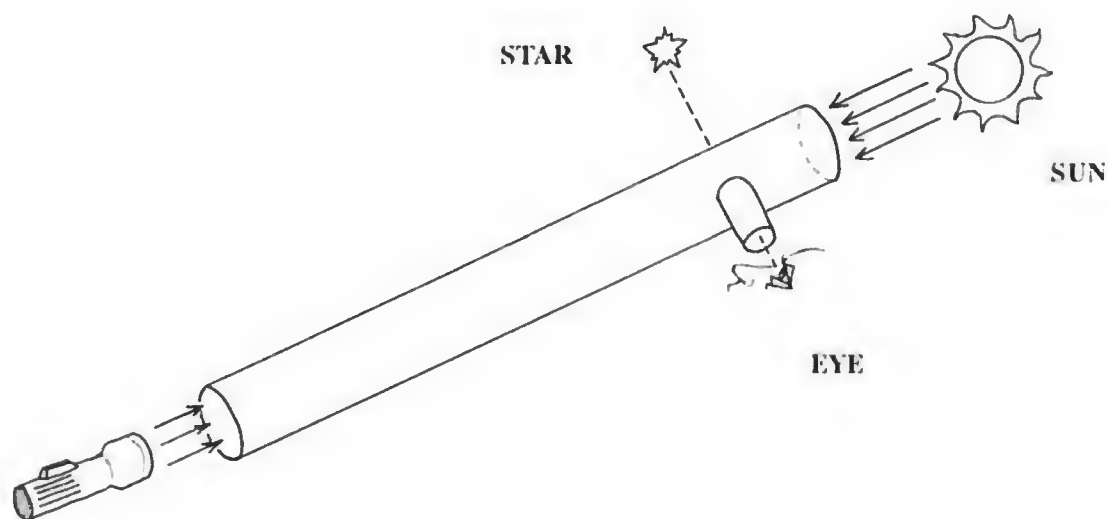
¹⁹p. 14, THE MOON: New World for Men, Caidin, 1963, Bobbs-Merill Co. Inc.

Professional astronomers have assured us that once we got above the Earth's atmosphere the view would be incredible. We would leave behind the moving thermal layers of air which causes those pin-points of light called stars to twinkle. We would also leave behind the reduction of intensity due to pollen, dust, humidity, and the thick layer of air itself. On a clear day we could see forever.

In retrospect, it seems that from the first Mercury shot, each and every astronaut has been compromised by the stars. These very same stars were reported as clearly visible by test pilots who flew the high-altitude rocket planes in the 1950's.

The final simple question. Why didn't the astronauts record on film a new scientific truth that the stars are not brilliant out in space? They had Hasselblad cameras, the finest in the world at the time. They had high-speed film, and, simply by opening the lens stop and slowing down the exposure they could have proved the truth of their words. Wouldn't that have been more scientific than randomly collecting a bunch of dusty rocks? But that would have given away the hoax. I repeat, it would have been impossible to fool the amateur astronomers.

5.1 STARLIGHT SCOPE ADDENDUM



I made this instrument to prove the astro-nots lied about the stars. The body is a two-foot long, three-inch diameter cardboard tube, through which I drilled a 1/4-inch hole exactly across the middle. The eyepiece is a two inch length cut from a toilet paper tube, and I glued it concentric to the drill hole. The tubes are painted flat black inside and out. During the day, with the Sun streaming down the tube, I can see a black object miles away.

At night, with a bright flashlight shining up the tube, I can see any star I look at. Photons at right angles to our line of sight simply do not interfere with our vision.

Even morons know that if they shield their faces from the Sun they can see objects very close to it. Don't you find it strange that not one of these men (with The Right Stuff) knew how to do this? Stranger still is the fact that when they complained about this to NASA not one of the NASA people knew how to do this!

6 MASS MURDER OR UTTER STUPIDITY

6.1 The Right stuff

"The Seven Samurai" is a 1954 Japanese cult movie about a poverty-stricken village that hired seven magnificent warriors to help them fight bandits. In 1960 Hollywood filmed "The Magnificent Seven", which was the same story set in Mexico as a western. Someone in the hierarchy of NASA had undoubtedly seen one or both movies and decided that seven space samurai was a psychologically appropriate number to start with. We were told that these men represented the nation's finest and that they possessed what was later called that elusive quality, "The Right Stuff."

Virgil Grissom certainly had "The Right Stuff". He was one of the original seven, culled from the first batch of military test pilots almost a decade before. Grissom was not the type of man who "went along to get along." Men who spend their lives seeking the wild hairs on a new airplane's ass seldom are. He was a professional test pilot and a mechanical engineer and had flown about 100 combat missions in Korea. But he was dead before his flight to the Moon could fulfill his dream.

6.2 Accidents

Compared to civilian test pilots, the astronauts were underpaid. However, their perks were impressive. Their celebrity status instantly conferred upon them all the bonuses usually associated with show business stardom. Each night on the town provided them with all the young women they could handle, plus free drinks in every bar in the country. They were also given a government jet trainer as a personal toy.

Test pilots have a hazardous occupation which probably sees as many fatalities per unit of time as do men in combat. However, before the first Apollo manned flight ever cleared the launching pad, eleven astronauts died in accidents. Grissom, Chaffee, and White were cremated in an Apollo capsule test on the launching pad during a completely and suspiciously unnecessary test. Seven died in six air crashes: Freeman, Basset, See, Rogers, Williams, Adams, and Lawrence. Givens was killed in a car crash.

When one reflects on their deaths in the light of the three-man instant crematorium one wonders. Add the fact that there were eight deaths in 1967 alone. One wonders if these "accidents" weren't NASA's way of correcting mistakes and saying that some of these men really didn't have "The Right Stuff."

After 1967, only Taylor died in another plane crash in 1970. An actuarial statistician would probably go berserk over these numbers considering how small the group was. Another weighty factor: even though they were "hot" pilots, the astronauts flew their trainer jets only part-time. And add to that the fact that trainers are inherently safer than other planes in the same class. It would raise his eyebrows to find how few of these men would ever enter space.

I can't help but wonder what technicians serviced their ships — because what we have here is an appalling "accident" rate. They were the finest professional pilots in the world, operating government planes where costs have little meaning. Yet they died. Even if we call the cremation an accident, we still have five more "accidental" deaths in one year. Very interesting! I also wonder what the death rate was among the other NASA employees who were in a position to know too much?

SPACE MISSIONS PERFORMED BY ORIGINAL SEVEN						
Name	Mission	Date	Mission	Date	Mission	Date
A. Shepard	Mercury 3	05/05/61			Apollo 14	01/31/71
V. Grissom	Mercury 4	07/21/61	Gemini 3	03/23/65		
J. Glenn	Mercury 6	02/20/62				
S. Carpenter	Mercury 7	05/24/62				
W. Schirra	Mercury 8	10/03/62	Gemini 6A	12/15/65	Apollo 7	10/11/68
G. Cooper	Mercury 9	05/15/63	Gemini 5	08/21/65		

6.3 The Preliminaries

The first American in space was Alan Shepard, followed by Grissom and then Glenn. I'm convinced that every Mercury flight was real and that the phony missions only started after Grissom's Gemini 3. Even some of the later Gemini flights were real (which leaves most of the original astronauts smelling like a rose). Unfortunately, Wally Schirra and NASA General Tom Stafford's Gemini 6A flight, with its miracle of an undamaged antenna, turned the rosy aroma into real toilet water. So did Alan Shepard's little golf game on the Moon during the Apollo 14 mission.

All of these men barely entered near space (near-Earth orbit) which I define as any altitude less than 500 miles. Far space is for those interstellar journeys that may come during the next millennium. That is, if we can solve our planetary problems before we

dissolve in the stew created by the Four Horsemen of the Apocalypse: War, Famine, Plague, Pestilence. Add a fifth "horseman", Religious Fanaticism, which frequently causes the other four.

Every other "race" involving aircraft, from hot air balloons through rocket planes, entailed serious efforts to go higher and faster than the other guy. For good technical reasons neither we or the Russians played that game. To this day our shuttle flights are limited to very near space, usually well under 200 miles in altitude.

Most writers on the Apollo Program either totally ignored, or played down, the fact that by early January '67, Grissom was no longer a happy camper. He was very disenchanted with both NASA and the prime capsule contractor, North American Aviation. This company had a phoenix-like ability to weather every storm, including the fire on Pad 34. They ultimately combined with Rockwell Engineering to become North American Rockwell.

6.4 Grissom's Lemon

North American Rockwell's first Apollo capsule was delivered and accepted by NASA in August '66, with a flight date set for November. But time after time the date had to be reset because of problems with the craft. "Grissom, a veteran of two test flights in Mercury and Gemini, normally quiet and easy-going, a flight pro, could not hide his irritation. 'Pretty slim' was the way he put his Apollo's chances of meeting its mission requirements."¹

According to Mike Gray, "Grissom had a sense of unease about this flight. He told his wife, Betty, 'If there ever is a serious accident in the space program, it's likely to be me.'"² We will never know if this statement was the result of a psychic premonition or a burgeoning fear of our government.

Early in January '67, Grissom, probably unaware that NASA had other internal critics, hung a lemon on the Apollo capsule. Then he threatened to go public with his complaints about the LEM.³ Grissom was already a popular celebrity, especially with the press. He would have had no problem getting his story out. In a case like this, even NASA's censors would have had little control over the news. Headlines like "Popular Astronaut Rips Into NASA!" couldn't easily be squelched.

¹p. 117, FOOTPRINTS ON THE MOON, Barbour, 1969, The Associated Press

²p. 218, ANGLE OF ATTACK, Gray, 1992, Norton

³p. 117, FOOTPRINTS ON THE MOON, Barbour, 1969, The Associated Press

6.5 Space Radiation

NASA also had another serious problem besides being in a space race with the Russian Bear. This problem derived from our first answer to the Sputniks. On January 31, 1958, Explorer 1 lifted into orbit. It weighed a mere 18.3 pounds and carried a geiger counter which dutifully reported that a belt of intense radiation surrounded the Earth.

The belt subsequently was named after the Explorer project head, James A. Van Allen. The radiation was first predicted by Nikola Tesla around the beginning of the 20th century as the result of experimental and theoretical work he had done on electricity in space in general and the electrical charge of the Sun in particular. He then tried to tell our academic natural philosophers (scientists) that the Sun had a fantastic electrical charge and that it must generate a solar wind. His efforts came to naught! Those experts "knew" he was crazy. It would take almost sixty years for future experts to prove him right.

However, predicting something is not the same as discovery. The discovery of our magnetic girdle of radiation rightfully belongs to the man who was suspicious enough to put a geiger counter on board the satellite (whichever technician actually thought of it).

Subsequent study showed that these belts, begins in near space about 500 miles out and extend out to over 15,000 miles. Since the radiation is more or less steady, it obviously must receive as much radiation from space as it loses. If not it would either increase until it fried the Earth or decay away to nothing. Van Allen belt radiation is dependent upon the solar wind and is said to focus or concentrate that radiation. However, since it can only trap what has traveled to it in a straight line from the Sun, there remains a very dangerous question: how much more radiation can there be in the rest of solar space?

The Moon does not have a Van Allen belt. Neither does it have a protective atmosphere. It lies nakedly exposed to the full blast of the solar wind. Were there a large solar flare during any one of the Moon missions, massive amounts of radiation would scour both the capsules and the Moon's surface where our astronauts gamboled away the day. The radiation is worse than dangerous — it's lethal!

In 1963 the Soviet space scientists told the famous British astronomer Bernard Lovell that they "could see no immediate way of protecting cosmonauts from the lethal effects of solar radiation."⁴ This had to mean that not even the much thicker metal walls used on the Russian capsules could stop this radiation. How could the very thin foil-like metal we used on our capsules stop the radiation? NASA knew better. Space monkeys died in less than 10 days, but NASA never revealed their cause of death.

Most people, even those interested in space, are still unaware that killer radiation pulses through space. I believe our ignorance was caused by the people who sell us space

⁴p. 173, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

sagas. I have a 9 by 12 inch coffee table book titled *The Illustrated Encyclopedia of SPACE TECHNOLOGY* printed in 1981. The words "space radiation" just do not exist on any of its almost 300 pages. In fact, with the exceptions of Mauldin's *PROSPECTS FOR INTER-STELLAR TRAVEL* published in 1992 and *ASTRONAUTICAL ENGINEERING AND SCIENCE* written by early NASA experts, no other book I have read even begins to discuss this extremely serious impediment to space flights. Do I detect the fine hand of my so-called government at work?

The Russians were in a position to know about killer radiation because as early as the spring of '61, their probes had been sent to the backside of the Moon. Upon his return to England, Lovell sent this information to NASA's Deputy Administrator, Hugh Dryden. Dryden, representing NASA, obviously ignored it!

Collins mentioned space radiation in only two places in his book. He said, "At least the moon was well past the earth's Van Allen belts, which promised a healthy dose of radiation to those who passed and a lethal dose to those who stayed."⁵

In speaking of ways to dodge problems he wrote, "In similar fashion, the Van Allen Radiation belts around the earth and the possibility of solar flares require understanding and planning to avoid exposing the crew to an excessive dose of radioactivity."⁶

So what does "understanding and planning" mean? Does it mean that after the Van Allen belts are passed, the rest of space is free of radiation? Or did NASA have a secret strategy for dodging solar flares once they were committed to the trip?

It seems to imply that in 1969 it was possible to predict solar flares. My astronomy text has this to say on that subject: "It is accordingly possible to predict only approximately the date of the future maximum and how plentiful the groups will then become."⁷ This text was 10 years old by 1969. Later in this book I will show that nothing had changed during the years of Apollo Moon missions.

To continue with the Apollo Program after receiving this information implies that NASA knew something the Soviets didn't. Either we had developed an effective extremely lightweight radiation shield or NASA already knew that no one was going anywhere near the Moon.

Could the cloth in our space suits stop radiation? I doubt it because more than 15 years have passed since the partial core meltdown at Three Mile Island. Workers still can't enter the containment dome. We don't yet have the technology to create lightweight flexible radiation shielding. High velocity could get the capsule through the Van Allen belt quickly, but what could they do about solar flares during the rest of the trip to the Moon? If we didn't go to the Moon, why didn't the Soviets, our arch enemies, rat us out?

⁵p. 62, *CARRYING THE FIRE*, Collins, 1974, Ballentine Books

⁶p. 101, *Ibid.*

⁷p. 291, *ASTRONOMY*, Baker, 1959, Van Nostrand

Something rang a bell as I thought about this. About the time we were fighting communism in Vietnam, and other countries in southeast Asia, we began selling wheat by the megaton at an ultra-cheap price to the Soviet Union (later to be called the Evil Empire) wheat by the megaton at an ultra-cheap price. On July 8, 1972 our government shocked the entire world by announcing that we would sell about one quarter of our entire crop of wheat to the Soviets at a fixed price of \$ 1.63 per bushel. According to these sources we were about to produce another bumper crop while their crop would be 10 to 20 percent less. The market price at the time of the announcement was \$ 1.50 but immediately soared to a new high of \$2.44 a bushel.⁸

Guess who paid the 91 cents difference in price for the Soviets? Our bread prices and meat prices were immediately inflated, reflecting the suddenly diminished supply. It was the beginning of the high inflation of the '70s. Now, how much did the Moon cost us? Would our government be a party to blackmail? Nah!

However, if NASA knew that Kennedy's dream was impossible in the timeframe given, they should have reported this to the President. We are "civilized" now and no longer cut off the right arm of the messenger who brings bad news. Now we cut off budgets! That's safer for the messenger but fatal to the bureaucracy in question.

NASA must have decided that if they couldn't make it they would fake it. Big bucks were at stake here, to say nothing of American prestige. Those bucks, properly funneled, would buy a lot of Southeast Asia, at least for awhile. And with proper prestidigitation, some of same could wind up in numbered accounts handled either by the "gnomes of Zurich" or offshore Caribbean banks.

6.6 NASA's Other Problem

NASA's second problem was magnified as a result of the first. If they were really going to land on the Moon they would have to be able to take great quantities of real photos and pick up genuine Moon rocks. Such pictures should include the Earth rising or setting against a background of a bona fide starry sky.

However, if they weren't actually going to the Moon, the evidence would have to be synthesized. Credible proof was vital to the continued high rate of funding and to NASA's very survival. NASA's labs could create "Moon rocks" to the specifications of an educated, or rather an expected, guess that would pass any inspection, because there wasn't anything else to compare them to.

Or they could have used rock samples picked up in Antarctica during the intensive exploration of that continent during the International Geophysical Year in 1957, when

⁸p. 1168, Economics of a Wheat Deal, Oct. 27, 1972, NATIONAL REVIEW

that continent was extensively explored. Werner Von Braun had Antarctic rocks shipped to NASA. Any strange rock would do if there were no fossils in it. These rocks could be slowly doled out, but only to those geologists who could be counted on to agree with anything the government said. Much of academia can be relied on to do just that!

Strangely enough, rocks were later found in Antarctica that closely resemble "Moon rocks". In point of fact, some geologists are now positive that these rocks were blasted from the Moon to Earth during immense meteoric impacts.

However, true-to-the-Moon photos posed a bit more of a problem. Because the 20th century is the age of increasingly sophisticated photography, huge amounts of tape and film had to be expended. At the time NASA seemed to do precisely that. As Harry Hurt wrote, "... Project Apollo was one of the most extensively documented undertakings in human history ..."⁹

Despite this claim and the fact that NASA's Apollo mission photo numbers seem to indicate that thousands of pictures were taken, we keep seeing the same few dozen pictures in all the books on space.

Using the well-developed art of Hollywood-style special effects (FX), the astronauts could be photographed "on the Moon" in the top secret studio set up near Mercury, Nevada. Of course, there is a bit more to great FX than having the best equipment. As in any art form, the artists are always more important than their tools. The backbone of superb FX is lodged in the Hollywood professionals who devote their lives to it. Lacking access to these experts, NASA was forced to use CIA hacks — relative amateurs.

Nevertheless, they did their job well enough to pass casual inspection for many years. It worked only because we wanted to believe! As long as we had something to hang our hats on we could continue to have faith and ignore the anomalies in the evidence the photos provided. It worked — for a while!

6.7 Grissom's Final Mistake

At the time of his death Grissom was one of NASA's old-timers. He was the man who, a few short years before, certified that the astronauts had been involved in every step of the program and had been free to criticize at will and even suggest ideas for improvements. He was the man whose fatal error was no more than in being who he was: an independent thinker; a free spirit who seemed to be completely unaware that NASA had wholeheartedly opted to enact the second part of the old saying "If you can't make it, fake it!"

⁹p. 323, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

He had been selected as Commander of Apollo 1, the first manned flight of the Apollo series. Grissom's crew included Edward H. White and Roger B. Chaffee. White flew on Gemini 4 but Chaffee was a newcomer who had not as yet been in space or fulfilled the NASA rite of passage by denying the visibility of stars and planets.

6.8 The Handicap

Right from the beginning, NASA was operating under a tremendous handicap. They were in a space race with a nation who, they knew, had operational rockets that made ours seem like tinker toys by comparison. The Soviets started their space program in capsules that were 50 times heavier than those we were launching six months later.

Soviet capsules were closer to being compressed air tanks than flimsy space capsules. Their ships had sufficient wall strength to maintain normal atmospheric pressure inside the craft against the zero pressure outside in space. However, since we didn't have rockets to lift that sort of weight, we couldn't afford this luxury. We had to make light, tin foil capsules just to get into the ball game.

The differential in pressure between the 14.7 psi (our normal atmospheric pressure) and the zero pressure of space amounts to 2116 pounds per square foot of outward loading on the enclosing wall of a capsule. Compare this figure with the floor of a house — which is designed to be safely loaded to only 30 pounds per square foot — and you will realize that relatively heavy metal is vital for skin and skeleton if you want to enjoy normal pressure. It is wall strength that prevents catastrophic and explosive depressurization of small capsules. The LEM's walls will be discussed in more detail later.

6.9 Breathing Mixtures

The greater lifting capacity of their rockets allowed the Soviets the luxury of using a mixture of 20 percent oxygen and 80 percent nitrogen — the equivalent to regular air. Naturally, it wasn't stored on board as bulky "compressed air". It was stored separately as liquids in cryogenic tanks. However, the nitrogen supply was smaller, since the gas is inert to the human body, and additional nitrogen is required only to help re-establish pressure when the cabin is vented to space. Oxygen tanks were larger because the only oxygen used was that small portion converted into CO₂ by the necessity of breathing. This is immediately removed from the cabin by chemicals. A great deal is also lost when the cabin is vented to space during depressurization.

6.10 Pure Oxygen

Lacking strong-walled capsules, NASA decided right from the beginning to use 50 percent oxygen and 50 percent nitrogen at 7 psi. This specification was changed in August 1962 into the use of pure oxygen at 5 psi.¹⁰

A policy shift of this nature indicates that approved design of the capsules that were manufactured was weaker than expected. The amazing thing is that NASA made this deadly decision despite testing that usually ended in disaster. One would think that after testing showed disaster one would never implement a dangerous policy. But NASA was in a race with destiny. They had no time for common sense.

6.11 NASA Tests

Here is a list of all government-sponsored testing that resulted in oxygen fires. This information was extracted from Appendix G in *MISSION TO THE MOON* written by Kennan & Harvey.

"September 9, 1962 — The first known fire occurred in the Space Cabin Simulator at Brooks Air Force Base in a chamber using 100 % oxygen at 5 psi. It was explosive and involved the CO2 scrubber. Both occupants collapsed from smoke inhalation before being rescued."

"November 17, 1962 — Another incident using 100 % oxygen at 5 psi in a chamber at the Navy Laboratory (ACEL). There were four occupants in the chamber, but the simple replacing of a burned-out light bulb caused their clothes to catch on fire. They escaped in 40 seconds but all suffered burns. Two were seriously injured. In addition an asbestos "safety" blanket caught fire and burned causing one man's hand to catch fire."

"July 1, 1964 — This explosion was at an AIRsearch facility when they were testing an Apollo cabin air temperature sensor. No one was injured. The composition of the atmosphere and pressure isn't listed, but we have to assume 100 % oxygen (and possible pressure equal to atmospheric)."

"February 16, 1965 — This fire killed two occupants at the Navy's Experimental Diving Unit in Washington, DC. The oxygen was at 28 % and the pressure at 55.6 psi. The material in the chamber apparently supported extremely rapid combustion, driving the pressure up to 130 psi."

"April 13, 1965 — Another explosion as AIRsearch was testing more Apollo equipment. Again, neither pressure or atmospheric composition is given but a polyurethane foam cushion exploded."

¹⁰p. 193, *JOURNEY TO TRANQUILITY*, Young, Silcock & Dunn, 1969, Doubleday

"April 28, 1966 — More Apollo equipment was destroyed as it was being tested under 100 % oxygen and 5 psi at the Apollo Environmental Control System in Torrance, CA."

"January 1, 1967 — The last known test was over three weeks before Grissom, Chaffee & White suffered immolation. Two men were handling 16 rabbits in a chamber of 100 % oxygen at 7.2 psi at Brooks Air Force Base and all living things died in the inferno. The cause may have been as simple as a static discharge from the rabbits fur . . . but we'll never know."

Of course, NASA's moronic decision to use pure oxygen would play a crucial part in the deadly fire on Pad 34 a few years later. Never mind that the test was classified as "non-hazardous" by NASA. Only after Grissom, White, and Chaffee died in that fire would NASA again change the specs to either 60-40 or 50-50 oxygen/nitrogen mixes at 5 psi, depending on the sources. "

In pure oxygen at normal pressure even a piece of steel wool will burn rapidly. In fact, Michael Collins claims that even stainless steel will burn.¹¹ As mentioned already, an asbestos blanket, normally classed as fireproof, was consumed when used to smother flames during an oxygen fire.¹² Pure oxygen is extremely hazardous!

To successfully switch to reduced-pressure breathing of pure oxygen one must first purge the body of nitrogen. This prevents residual nitrogen left in the body from forming small bubbles which expand from the decreasing pressure. To deep sea divers this is known as the "Bends". To avoid this lethal hazard, astronauts must spend some period of time breathing 100 percent oxygen, at full atmospheric pressure, just before the mission. This is medically dangerous.

The pressure problem in a space capsule is similar, but opposite, to those encountered in a submarine. Submarine hulls are deliberately built strong to resist the increasing pressure at depth. If a submarine hull were as thin as our spacecrafts at 200-feet deep water it would require an internal pressure of 100 psi — at 300 feet a pressure is 150-psi.

6.12 Pressure Testing

The Apollo Program command capsules must be regarded as flimsy, even though they were built of titanium, which has the strength of steel and weighs half as much. I reason that if our capsules were too weak to withstand normal pressure, they must also have been too weak to keep the atmosphere from crushing the capsule on the launching pad. If this was true they had to be using 100 percent oxygen at normal pressure during the launch.

¹¹p. 275, CARRYING THE FIRE, Collins, 1974, Ballentine Books

¹²p. 194, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

I found out that this is precisely what NASA did on all their launches. It is obvious that the present shuttles, with 50 tons of cargo capacity, could use normal pressure and regular air. However, the designers may still begrudge the few pounds of extra material in the cabin that it takes to do this. By the same token, our large diameter commercial airliners are able to maintain almost regular atmospheric pressure and don't have to resort to pure oxygen, even when flying over 40,000 feet? Neither does the SST which reaches altitudes of 60,000 feet.

To insure the integrity of the capsule, NASA subjected it to their pressure test. One would assume that they would use compressed air for this test, because the electric panels had power, and live men were inside the unit. However, when it came time to test the capsule on Pad 34, it was decided to use pure oxygen at a pressure somewhat above our atmospheric pressure of 14.7-psi. What the actual pressure was is confusing. It was either 16.7 psi according to Michael Collins, or 20.2 psi as reported by Frank Borman.¹³

One would think that intelligent men with "The Right Stuff would know precisely the pressures used. But either way, there were astronauts locked inside — practicing for their first Apollo mission. After the accident NASA claimed the test was SOP (Standard Operating Procedure). In either case an idiot was in charge.

If it was SOP, then the idiot was the official who instituted and approved this test program. If not, then it was the low-level idiot in direct charge of the test who gave the order to proceed. I have no fear of a libel suit because of this accusation. The only legal defense in a libel suit is whether what you said was the truth as determined by a jury. If you were on a jury and watched steel wool explode in a 16.7 psi 100 percent oxygen atmosphere what would you decide?

I find it hard to believe that this test was SOP. In fact, I suspect that it wasn't, simply because two men with "The Right Stuff couldn't agree. NASA telling us after the fire that it was always done that way doesn't prove a thing. NASA, like all political organizations, can always be counted on say anything to better their position. Using pure oxygen at this pressure, once the panels were alive, means that every launch was always one small spark away from disaster. Combustion in 100 percent oxygen even at low pressures is extremely rapid. At higher pressures it becomes explosive!

6.13 High Pressure Oxygen

Consider this standard procedure: burning a substance using high pressure oxygen is precisely the method used to determine the number of calories in that substance. The test

¹³p. 175, COUNTDOWN, Borman & Serling, 1988, Morrow

procedure requires placing the sample in a strong steel pressure vessel called a "Calorimeter Bomb." The "Bomb" is placed in an insulated container holding a known quantity of water at a known temperature. There is an electrical sparking device inside the bomb, and sufficient high pressure oxygen is added to insure complete combustion of the material.

Even relatively wet foodstuffs are quickly reduced to ashes once the electric spark initiates combustion. This process produces high pressures in the steel chamber. That's why it's called a Calorimeter Bomb. The heat is transferred to the surrounding water and the rise in temperature, according to known parameters, results in the quantity of calories (energy) derived from the substance tested.

Every time an electric switch is thrown, the induction of the electric current causes a tiny spark to jump between the two switch contacts. If the unit is explosion proof (like the switches, motors, and lighting fixtures used in hazardous or explosive locations), that spark is safely enclosed in a hermetically sealed container. If not, anything near it that is combustible can burn.

In standard electrical switches the electrical insulation is some form of plastic (hydrocarbon). All hydrocarbons can be oxidized if there is sufficient oxygen and heat to raise the temperature of some small portion of that substance beyond the flashpoint. Bear in mind that an electric spark is a plasma. Indeed, the temperature at the core of a large spark can be so high it is indeterminable.

6.14 Spontaneous Combustion

The phenomenon we call spontaneous combustion is also oxidation. Under normal conditions oxygen in the air begins to oxidize almost any material. In fact, what we call rust on metal is very slow oxidation. If the material is insulated to any degree, the heat created by the process cannot escape as fast as it is generated. The entrapped heat creates a small temperature rise which increases the rate of oxidation. If some or all of that increased heat cannot escape there is a self-escalating "loop". The temperature continues to rise until the flashpoint is reached. At that point the material bursts into flame. That's "spontaneous" combustion.

In an atmosphere containing a higher percentage of oxygen, or a higher pressure, the oxidation rate is greatly increased. It is well known that a pile of oily rags in an oxygen environment will burst into flame. In 100 percent oxygen any hydrocarbon or carbohydrate becomes potential fuel needing only a small spark or increase in heat to set it off.

6.15 The Test

On January 27, 1967 astronauts Grissom, White and Chaffee approached Pad 34 where an obsolete model of the command capsule had been installed on top of an unfueled Saturn IB rocket.¹⁴ This was the same type of rocket that had carried the smaller and lighter Gemini capsules. The capsule itself was already outmoded and would be replaced before any Apollo missions were launched.

However, this was a full "dress rehearsal". But somebody neglected to tell the maintenance people to clean out all the extremely combustible extraneous construction materials. The urgency of this test was simply that they were scheduled for a manned mission that had been repeatedly postponed. As we will see later, NASA had every intention of sending Apollo 1, Grissom's mission, into space even though neither the Saturn V (actual moon rocket) nor the Apollo capsule had ever actually been tested in space.

Wouldn't you have smelled a rat? Perhaps Grissom was a bit worried. He got Wally Schirra to ask Joe Shea, NASA's chief administrator, to go through the test with him. "Grissom still wanted Shea to be with him in the spacecraft."¹⁵ Shea refused because NASA couldn't patch in a fourth headset in time for the test. Is that likely? It is difficult to believe that this couldn't have been done in the 24-hour timeframe available. If I had a crew of technicians who couldn't install another headset jack in that amount of time I'd fire the whole damn crew.

The original Apollo capsule had different hatches, but by 1300 hours all three astronauts were strapped in their acceleration couches with the new hatches sealed behind them. It was later revealed that these hatches were so poorly designed that even with outside help and in a non-emergency situation, it took seven or eight minutes to open them. They were originally supposed to spend a few hours practicing throwing the proper switches at the right time in sequential response to computer simulations. However, with delay piled upon delay and everyone in a hurry, each time a switch was thrown, unnoticed, tiny sparks jumped.

During the test of the Apollo capsule on Pad 34, Grissom and his crew were in 100 percent oxygen simulating the real thing. In fact they reported a burning smell a few times earlier that day. When that happened technicians would come with "sniffers", open the hatches, but find nothing. One wonders if the review board considered that these hatch openings flushed out the smell with the fresh air admitted by opening the hatch. These incidents delayed the test, and time was running out.¹⁶ The extraneous combustible materials may have been combining with the pressurized oxygen each time pure oxygen refilled the cabin. Oxidation makes heat, and if you stop the process that heat remains in

¹⁴p. 101, WE REACH THE MOON, Wilford, 1969, Bantam

¹⁵p. 187, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

¹⁶p. 186, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

the material. Each time you repressurize the craft the combustible material will be at a slightly higher temperature. I sense that Borman's "board of review" missed this angle.

I also feel that spontaneous combustion would have been much too subtle for the CIA. If it was a CIA hit they would have done it with an electric squib or incendiary device wired to a switch, programmed to be thrown toward the end of the test.

While the testing was going on, some mastermind in Mission Control decided to save some time. In his wisdom that unknown leader made the decision to speed up the testing. As the board of inquiry later noted, "To save time, the space agency took a short cut." What he did was simply order the capsule to be pressurized with 100 percent oxygen at either 16.7 or 20.2 psi. Notice that no name was used. The entire agency takes the blame. Such compassion by a major player!

I have great difficulty believing that apparently not one of these rocket scientists in Control, nor the astronauts themselves, knew that a Calorimeter Bomb consists of a combustible material, pressurized oxygen, and a spark. These were highly educated men who had technical degrees, who had taken chemistry courses, and who must have spent some time around welding and cutting torches that used oxygen.

I cannot understand why Grissom et al entered that capsule in the first place if they knew it was to be pressurized with oxygen over 14.7 psi. In a hospital no one is allowed to smoke in a room where oxygen is in use. In this situation we have only a small section of a room with tiny amounts of low-pressure oxygen being used. Yet everyone seems to know of the danger. Grissom was a test pilot and engineer, while both White and Chaffee had degrees in aeronautical engineering. Apparently not one of them complained. Didn't anyone know about Calorimeter Bombs? Didn't NASA send them copies of the fire reports? Or maybe no one told them they were jacking up the pressure!

At 1745 hours (5:45 pm) Grissom was getting angry with the communication people for a static-filled, on-again-off-again communication system. At one point he ragged them, "How do you expect to get us to the moon if you people can't even hook us up with a ground station? Get with it out there."¹⁷

In the meantime, around 6: 00 p.m., Collins had to attend a general meeting of the astronauts. Let Collins tell you about it in an incredible single paragraph.¹⁸

"On Friday, January 27, 1967, the astronaut office was very quiet and practically deserted, in fact. Al Shepard, who ran the place, was off somewhere, and so were all the old heads. But someone had to go to the Friday staff meeting, Al's secretary pointed out, and I was the senior astronaut present, so off I headed to Slayton's office, note pad in hand, to jot down another weeks worth

¹⁷p. 96, WE REACH THE MOON, Wilford, 1969, Bantam

¹⁸p. 270, CARRYING THE FIRE, Collins, 1974, Ballentine Books

of trivia. Deke wasn't there either, and in his absence, Don Gregory, his assistant presided. We had just barely gotten started when the red crash phone on Deke's desk rang. Don snatched it up and listened impassively. The rest of us said nothing. Red phones were a part of my life, and when they rang it was usually a communications test or a warning of an aircraft accident or a plane aloft in trouble. After what seemed like a very long time, Don finally hung up and said very quietly, "Fire in the spacecraft." That's all he had to say. There was no doubt about which spacecraft (012) or who was in it (Grissom-White-Chaffee) or where (Pad 34 Cape Kennedy) or why (a final systems test) or what (death, the quicker the better). All I could think of was My God, such an obvious thing and yet we hadn't considered it. We worried about engines that wouldn't start or wouldn't stop; we worried about leaks; we even worried about how a flame front might propagate in weightlessness and how cabin pressure might be reduced to stop a fire in space. But right here on the ground, when we should have been most alert, we put three guys inside an untried spacecraft, strapped them into couches, locked two cumbersome hatches behind them, and left them no way of escaping a fire. Oh yes, if a booster caught fire, down below, there were elaborate if impractical, plans for escaping the holocaust by sliding down a wire, but fire inside a spacecraft itself simply couldn't happen. Yet it had happened, and why not? After all, the 100 percent oxygen environment we used in space was at least at a reduced pressure of five pounds per square inch, but on the launch pad the pressure was slightly above atmospheric, or nearly 16 psi. Light a cigarette in pure oxygen at 16 psi and you will get the surprise of your life as you watch it turn to ash in about two seconds, with all those oxygen molecules packed in there at that pressure, any material generally considered "combustible" would instead be almost explosive."

Here Collins reported that the pressure was 16 psi. Other authors went higher. A staff meeting at 6:00 p.m. on Friday night? Do you have a feeling that this Friday night staff meeting was the first and last in the long history of our government bureaucracies?

6.16 The Fire

At 6:31:03 pm, one of the astronauts smelled smoke and yelled fire. The capsule had suddenly turned into a Calorimeter Bomb. They tried their best to open the hatch. Without panic the triple hatch which sealed them in usually took about nine minutes to open. They didn't have nine minutes. In fact, they barely had ninety seconds before their suits burned through and the deadly poisonous gasses released from the burning of modern plastics silenced them forever.

The capsule's internal pressure soared from the great quantity of hot gasses created by the quasi-explosive burning of all the combustible material. This short-term fire was so

intense that it melted a silver soldered joint on the oxygen feed pipe, pouring even more oxygen into the conflagration.

At 6:31:17 p.m., 14 seconds from the first smell of smoke, the pressure reached 29 psi, and the capsule ruptured, effectively releasing the heat and damping the fire. But it was too late. They were already as good as dead.

If this was not murder and was just an example of extreme stupidity in governmental slow motion, why did government agents in rapid action raid Grissom's home before anyone knew about the fire? Why did they remove all his personal papers and his diary? Why didn't they return his diary, or any other paper with the word "Apollo" on it, when they returned some of his personal papers to his widow? And if it really took 29 psi to blow the cabin, why didn't they use regular air at higher pressure?

Also, was it really the vicissitudes of life that the outward opening hatch was coincidentally changed that very morning to one that opened inward? An inward-opening hatch meant that any inside pressure, acting outward, would prevent it from being opened — even if someone was standing by, which they weren't. It was also bolted up from the outside and lacked explosive bolts.¹⁹

6.17 The Aftermath

NASA should have known better. And they did! You read earlier of the men injured in flash explosive fires in their own tests. NASA had even commissioned a report by Dr. Emanuel M. Roth which was published in 1964. Dr. Roth cited difficulties with 100 percent oxygen atmospheres even under low pressures. Any competent engineer should have known the dangers of oxygen at 16.7 or 20.2 psi. This is why I cannot believe that this was "standard operating procedure" or that Grissom and his crew knew about it. NASA not only ignored their own tests on pure low-pressure oxygen but upped the ante by increasing the pressure above atmospheric!

Kennan and Harvey had this to say, "Most U.S. scientists could not believe their ears when they learned that fact. Oxygen at such pressure comes in the category of an 'oxygen bomb:'"²⁰

6.18 The 204 Board of Inquiry

A board of inquiry termed "The Apollo 204 Review Board" was quickly convened to investigate the fatal fire, and astronaut Frank Borman was appointed chairman. In effect,

¹⁹p. 32, MISSION TO THE MOON, Kennan & Harvey, 1969, Morrow

²⁰p. xi, Ibid.

NASA sent the fox into the chicken house to investigate mysterious disappearances of the occupants. The board's final report was about what you might expect when an in-house investigation investigates itself. "One key to the caution which reveals itself on every page of the Board's report is that it was written by government employees. Thompson himself was director of the space agency's Langley Research center, and no fewer than six of the eight Board members were NASA officials."²¹

The pressure of 16.7 psi is quoted from *Journey to Tranquility* in which the authors wrote that they learned the pressure of the pure oxygen in the capsule was 2 psi over atmospheric. Collins reported it as nearly 16 psi. It seems strange that NASA told two insiders, Borman and Collins, plus the authors of "Tranquility" three different capsule pressures. Apparently NASA, like the rest of us, finds it almost impossible to keep all the little white lies straight. And if it's a group lie we get the results shown in this book.

Borman writes that "We brought in every learned mind we could enlist — including a chemistry expert from Cornell..."²² Didn't this expert know that oxygen has a deep and forceful desire to breed little oxides by passionately mating with hydrocarbons and carbohydrates? Didn't this so-called expert tell them that?

Borman played dumb when he was called before Congress. In testifying under oath he said, "None of us were fully aware of the hazard that existed when you combine a pure oxygen atmosphere with the extensive distribution of combustible materials and a likely source of ignition ... and so this test ... was not classified as hazardous."²³ And if Borman was as unaware of all the dangerous fires that erupted during NASA's own safety tests over the years, why did he later write about 20.2 psi oxygen in this manner: "That is an extremely dangerous environment, the equivalent of sitting on a live bomb, waiting for someone to light the fuse."²⁴

Aldrin in his 1989 book, "MEN FROM EARTH", written 22 years after the cremation has this to say "As every high school chemistry student learns, when a smoldering match is put into a beaker of oxygen, it blazes into a spectacular flame."²⁵

Aldrin continues telling us how there was a multitude of switches and miles of electrical wiring, all of which were easy to short and could act as a match. "But the risk was considered acceptable because, in space, the astronauts could instantly depressurize their cabin . . ."²⁶ Hey, Buzz, didn't you claim that the reason your EVA on the Moon was late in starting was because it took so long to vent the last of the oxygen from the LEM?

²¹p. 192, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

²²p. 174, COUNTDOWN, Borman & Serling, 1988, Morrow

²³p. 146, MISSION TO THE MOON, Kennan & Harvey, 1969, Morrow

²⁴p. 175, COUNTDOWN, Borman & Serling, 1988, Morrow

²⁵p. 162, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

²⁶p. 163, Ibid.

What? Borman, who held a Masters in engineering and taught thermodynamics at West Point, claims nobody was aware of the danger! After all these years Aldrin now claims he knew. Obviously, either Borman is lying or Aldrin didn't have the guts to open his mouth.

When Deke Slayton was asked about the pressure test he reportedly blurted out, "Man, we've just been lucky. We've used the same test on everything we've done with the Mercury and the Gemini up to this point, and we've just been lucky as hell."²⁷

Why do I doubt that? I suspect that everything about the pressurization test is a lie. I think that it was a one time only occurrence specially configured to suit the job at hand.

Borman contended that Ed White and his wife Pat were friends of his and that he listened to the audio tapes of the fire over and over again. Then he states, "The only comfort derived from listening to the tapes was the knowledge that the agony hadn't lasted long; that death had come from noxious fumes before the flames reached them."²⁸

Borman's acumen might be judged by the fact that Eastern Airlines turned into a sinking submarine when he was at the helm as CEO. Nobody dies in 14 seconds from noxious fumes. Ed White died inhaling super heated oxygen which set fire to his lungs, throat and skin the same way that technician's hand burned in the test years before. The chances are they survived for minutes and were conscious for a good part of that time. However, death was definite after the first breath.

Borman then writes about "nuts" and disgruntled employees who tried to give his committee information. "As the investigation progressed, all sorts of nuts came out of the woodwork with their own theories. There also were some serious allegations directed against North American Aviation, most of them coming from former employees with large axes to grind. They charged the company with criminal neglect and mismanagement, and we investigated each accusation thoroughly. We found that in every case we were getting input from people who simply had personal grievances against the company, with no evidence to back them up."²⁹

That's odd! One of Borman's superiors, General Sam Phillips, also made a report in November 1966 that shredded North American Aviation. He could hardly be classified as a disgruntled employee. Speaking of classified information, Michael Gray in his book disclosed the fact that Phillip's report was classified.³⁰ Borman apparently ignored that report.

Time and time again, NASA has bragged about how open NASA was. One wonders, then, who classified this report? What could it possibly have had to do with national

²⁷p. 233, ANGLE OF ATTACK, Gray, 1992, Norton

²⁸p. 174, COUNTDOWN, Borman & Serling, 1988, Morrow

²⁹p. 178, Ibid.

³⁰p. 240, ANGLE OF ATTACK, Gray, 1992, Norton

security? No wonder that Bill Kaysing was never able to obtain a copy. To paraphrase an old saying, the "TOP SECRET" stamp, because it reflects patriotism, has always been the last refuge of scoundrels.

On April 27, 1967 the 204 Board was still in the process of (almost) learning new things. A low-level employee named Thomas Baron had already testified in Washington and now was a target for NASA's ire. His voluminous reports were day by day accounts of North American's screw-ups and were written years earlier. It seems very strange that both Baron's and Phillips' reports disappeared. After accepting his reports, the 204 Board wrote off his testimony. By the very next evening Baron, his wife, and his stepdaughter would be dead! The two women were totally innocent, but apparently that's what they get for associating with a NASA whistle-blower.

One of the common "accidents" to governmentally-sensitive folks in Florida is the old railroad crossing gambit. There are lots of semi-deserted country roads and active railroad tracks in Florida. Usually after the grisly event, the bodies are found by someone so powerful that he can have them immediately cremated, frequently before an autopsy can be performed — which is contrary to Florida state law. And they used to tell us horror stories about the KGB! I no longer live in Florida, so if they come after me for writing these words, they will have to think up a new method.

And please note: I am not suicidal. I say that because suicide is a common cause of death in this context. For instance, there is a suspicion that another casualty of NASA is Mrs. Pat White, who allegedly committed suicide a few years after her husband's cremation. According to post-mortem reports she wasn't suicidal either. Low-level whistle blowers die like flies, and yet General Phillips goes on to head NASA after he told basically the same story.

Borman also complained about the windows that kept fogging up on his Gemini 7 mission and on Apollo 8. North American for four straight years failed to find a solution for such a simple problem as window fogging, yet he couldn't find anything seriously wrong with them. That's about par, isn't it?

Borman was stationed at Clark Air Force base in Manila during 1952. Part of his duty was to inspect a huge warehouse that stored heavy equipment, supposedly ready to roll on an instant's notice. His inspection revealed that "there wasn't a vehicle or a piece of equipment that wasn't in deplorable shape — most of it unusable without major overhauls. The stuff had been there since the end of the war and obviously hadn't been touched since."³¹

The Captain in charge asked Borman to certify that it was in good condition, and he refused. The code of West Point is "duty and honor" and that took precedence. However, when a Colonel insisted that he sign off that the equipment was in good condition Borman

³¹p. 51, COUNTDOWN, Borman & Serling, 1988, Morrow

caved in. "Honor" be damned. The new moral code is apparently totally dependent upon the rank of the officer who gives the order. Go along to get along!

Next, Borman, still the politician that Collins first pegged him for, tells perhaps the greatest lie of his life. He concludes, "We didn't sweep a single mistake under the rug, and to this day I'm proud of the committee's honesty and integrity."³² Presumably Mr. Borman had his fingers crossed when he wrote that!

The committee was still in the middle of its stately review process when on April 7, 1967, a House subcommittee was also convened to investigate the fire. The next day a very dismayed New York Times fired off a lead editorial. They used the words, "Even a high school chemistry student knows better than to play with 100% oxygen." The editorial went on to accuse NASA, in general, and those in charge of the Apollo project, in particular, of "incompetence and negligence."³³

The 204 Board concluded with a real wrist spanker of a statement against NASA, "A sealed cabin, pressurized with a pure oxygen atmosphere without thought of fire hazard; an overly extensive distribution of combustible materials in the cabin; vulnerable wiring carrying spacecraft power; leaky plumbing carrying a combustible and corrosive coolant; inadequate escape provisions for the crew, and inadequate provisions for rescue or medical assistance."

Both committees would prove about as useful as a screen door in space (and about as effective as the politicians who manned the Warren Commission's investigation of the Kennedy assassination a few years before). Like all government inquisitions, they used a method best described as "let's all gang-bang the whistle-blower."

The entire nation saw this process repeated in all its unadulterated glory during the Anita Hill/Clarence Thomas hearings where she exercised futility trying to derail what turned out to be President G. Bush Sr.'s last chance to stack the Supreme Court for the Moral Majority. What apparently no one wanted to understand was that she wasn't testifying for revenge. His actions didn't warrant revenge. She spoke out because of his hypocrisy. At the time of the incidents described by Ms. Hill, Thomas was the head of a federal bureaucracy charged with stamping out sexual harassment.

Along with the few honest good guys on any government committee, who always seem to be trying hard to discover the truth, there are always a couple of truth stoppers and their cohorts, the obfuscators. When any witness dares to try to tell them what they don't want to hear the obfuscators pipe up with a flurry of verbal left jabs to keep them off balance until the truth stoppers can finish them off.

At the beginning of the Mercury Program, NASA tests on pure oxygen proved that the safe pressure limit for breathing was between 2.9 and 6.67 psi. They also concluded that

³²p. 178, Ibid.

³³p. 220, APOLLO, The Race to the Moon, Murray & Cox, 1989, Simon and Schuster

pressures "outside these limits would cause severe, if not permanent damage."³⁴ In plain English, murder begins at 6.7 psi!

Kennan & Harvey have this to say about the fatal test on the capsule: "The day of the plugs-out test, the TV camera inside the space-craft, which was an important piece of flight and test equipment, was absent; its retaining brackets had somehow been bent during installation."³⁵

These authors never called it murder, but they continued with this statement: "It is of the greatest significance that the fire extinguishers were located in that (008) spacecraft during its testing. Not only were fire extinguishers included but fire resistant teflon sheets were draped over wire bundles and the astronaut's couches. These particular items, non flight items, were conspicuously absent in command module 012 during the fatal plugs-out test on January 27, 1967."³⁶

They also summed up the test with these statements.

"It was the first and only use of the new three piece hatch."

"It was the first plugs-out test in which as many as three hatches were closed on a crew in an oxygen atmosphere at a pressure of sixteen pounds per square inch, ..."

"It was the first occasion of the Apollo emergency escape drill under all-out pre-launch conditions."

"It was the first occasion when certain non flight flammable materials, such as two foam rubber cushions — were placed in the cockpit."³⁷

Later NASA would rule out the use of any material which could be ignited by spark at 400 degree F in pure oxygen at 16.7 PSI.³⁸ "They included the couch padding, to which astronaut White's body was welded by the heat: this, it emerged, could be ignited by a spark at 250 F."³⁹ Notice they still had every intention of using 16.7 psi oxygen. Or was it 20.2 psi?

If a civilian corporation killed three men by extreme stupidity, there would be criminal proceedings, trials, and fines. But because the government is the suspected culpable party nothing happens. To repeat: I cannot believe that in such a highly technical field as space that even the lowest paid technician would not have questioned the moronic decision to use 100 percent oxygen to try a pressure test on a capsule with live electric panels, as well as locked-in and strapped-down astronauts; especially on a capsule that would never fly.

³⁴p. 39, THE HISTORY OF MANNED SPACE FLIGHT, Baker, 1982, Crown

³⁵p. 21, MISSION TO THE MOON, Kennan & Harvey, 1969, Morrow

³⁶p. 57, Ibid.

³⁷p. 20, Ibid.

³⁸p. 195, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

³⁹p. 198, Ibid.

At the time there was talk that the Apollo Program might be scratched. But even if 50 people had been killed, the operation would have continued with no more than a brief pause, because the bucks were too big. As Collins points out, "I don't think the fire delayed the first lunar landing one day, because it took until mid-1969 to get all the problems solved in areas completely unrelated to the fire."⁴⁰

According to the newspapers, NASA committed another unequivocal example of utter stupidity on March 19, 1981. They had a chamber on the Space Shuttle Columbia filled with nitrogen, and seven people entered it. Two died and five were injured.

The cremation was mass murder. If not it was unconscionable stupidity. We may never know for sure. What I am sure of is that the entire Apollo Program was a show; a simulation produced by the CIA, directed by NASA, invested in by Congress, and paid for by Mr. and Mrs. American Taxpayer! To protect their multi-billion dollar income the CIA murdered three astronauts on Pad 34, plus four more on plane rides and one in a car.

⁴⁰p. 276, CARRYING THE FIRE, Collins, 1974, Ballentine Books

7 SPACE NAVIGATION

When man first journeyed out onto water, he navigated in the same manner that he used on land: he saw where he wanted to go and pushed himself in that direction. It was an aiming process. To this day, whenever there is good visibility and deep water in a harbor or river, this is still the method used. It is called piloting or the taking of visual bearings. Over the years many piloting aids have been developed such as the compass, depth finders, charts, buoys, and lighthouses. With these instruments the pilot determines his present location and aims the boat to the desired location, whether it be a fishing hole out of sight of land or a dock across a broad bay.

Centuries passed and boats became safer, enabling man to venture further from shore. But even with good visibility, once out of sight of land, every wave looks alike. Even when men tried to steer a straight course a ship would wander, pushed off course by wind and ocean current. Man slowly developed crude celestial navigation using the observed east to west motions of the Sun, Moon, and stars, all of which were only usable under conditions of good visibility.

Whether on land, on sea or in the air, the only way you get to your destination, if it can't be seen, is by knowing both your approximate current position and the location of your destination. Once this information is known, in decent weather, it becomes a simple matter of pointing yourself in the proper direction and going there.

At sea, out of sight of land, there are two ways to do this. The ancient Polynesians used the stars with the knowledge that night after night they parade over the Earth in almost exactly the same great circles. The deviation from this course varies only slightly night to night during the entire year, and the pattern repeats year after year.

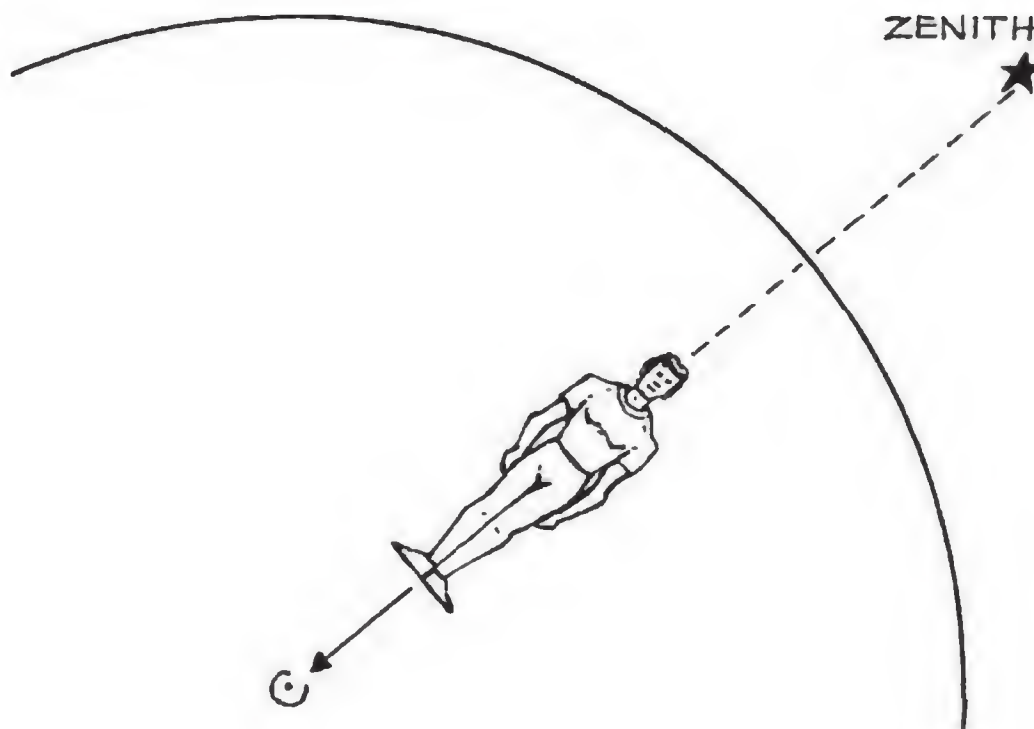
The Polynesians learned which stars culminated (reached the zenith) directly overhead a given island. Since a star will do the same thing for hundreds or thousands of years, that star becomes a beacon for the world's tallest lighthouse whose footings are located in one particular geographic location. By sailing to the west of that rising star they could zero in on their destination without compass or sextant. In this manner, island by island, they learned to navigate the immense Pacific while European seaman hardly dared leave sight of the coasts.

Asiatic seamen learned similar astral navigation as there is evidence that the Chinese reached the West Coast of both North and South America. Eventually western astronomers

developed astronomical charts of the Sun that showed its latitude on each particular day. Since the Sun changes latitude at less than a quarter of a degree per day, if you measure the altitude of the Sun at high noon you can use this information to create a chart or later to find your latitude. It involves no more than subtracting the Sun's angle of elevation at high noon (culmination) from 90° then adding it to the Sun's known latitude that day. Before we get to navigation in space, it's helpful to know a little more about earthly navigation.

The angle of elevation was first measured by knotted strings held in the hands. The cross staff evolved into the octant, and eventually became the sextant that is still in use. The bands of latitude are natural divisions and are determined by the equator and poles. Longitude is artificial. It starts with an arbitrarily chosen point and had to wait for the development of an accurate seagoing clock before it was helpful for navigation. Once the west had an accurate sea going clock and it's astronomers provided adequate almanacs or ephemerides, we began to use the stars for navigation.

The GP (Geographical Position) of any celestial body is the ground point directly under a body at its zenith (directly overhead) as shown below.



To determine a GP it is necessary to have a sextant to measure the angle of elevation of that body (the Sun, planets, selected navigational stars, or the Moon) from our horizon. The exact time of that "shot" (observation) must also be known. From that data you can find the geographic position (GP) of the body from an almanac.

An almanac consists of a series of tables prepared by astronomers that show the positions of the Sun, Moon, major planets, and the navigational stars every hour of every day for the year. When an observation isn't made on an even hour, the GP can be easily extrapolated from the tables.

With the advent of electronic navigation systems, celestial navigation became unnecessary. However, just like the optical method, these systems (like loran) also depend on measuring your distance from the known geographic locations of land-based transmitters. In general, each of these systems requires the measurements from three different bodies for a fix. The exception to this rule is the use of a high noon shot of the Sun. In itself, it gives you latitude, and if you know the time it also gives you longitude.

Each system generates a single circular line of position (LOP) at a radius equal to your distance from the observed body's geographic location at the instant the observation or radio reading was made. It is axiomatic that you could be anywhere on one particular line.

Suppose that you knew you were 35° away from the geographical position of a transmitter located at 45° N latitude and 30° W longitude. If you had a large globe and a large compass you could set the compass to that arc distance by laying out along the equator. Then you could stab the compass point into that 45° N and 30° W and draw a large penciled circle directly on the globe. This is LOP as shown on the first drawing.

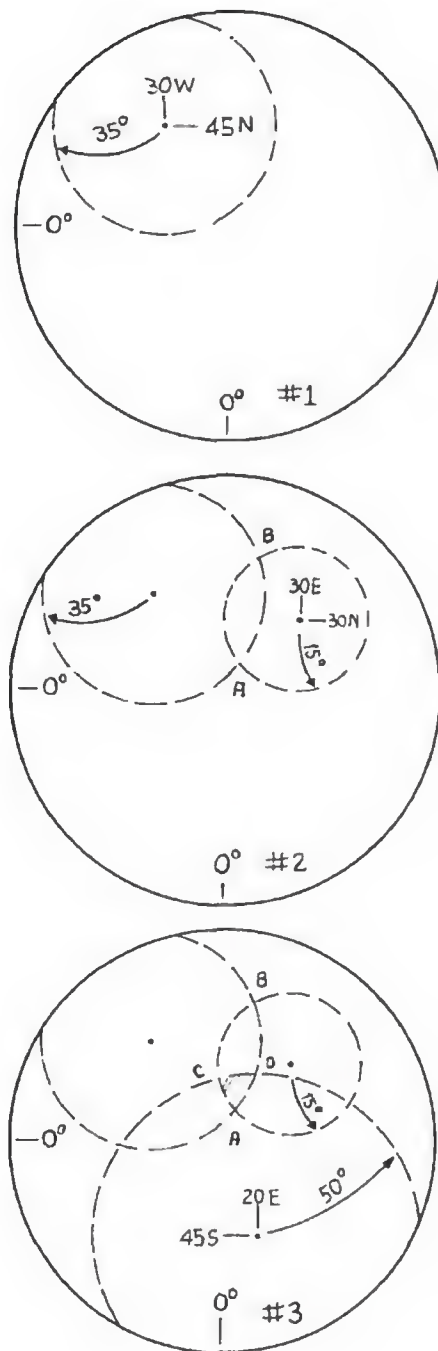
The second transmitter or star is located at 30° N and 30° E at a distance from you of 15°. You reset the compass to that arc distance and stab the point into the above location and again draw a full circle which is LOP 2 as shown in the second drawing.

This second circle intersects LOP 1 at points A and B. Your position is close to either of the two intersections.

You have a third observation (shown in the third drawing) which places you at 50 degrees from 45° S and 20° E. You set the compass to 50° stab it into the above location and draw LOP 3.

LOP 3 intersects at the previous LOPs at points C and D, giving us a small shaded spherical triangle. You are located in that area. If the triangle is about a degree wide, then your uncertainty in position is about 30 nautical miles.

In an actual trial you could wind up with an uncertainty of only a few miles. Considering the size of the world, this is not much of an error. Navigators on small boats regularly work with sextants and Sight Reduction Tables and get their fixes to this accuracy.



The lines of position are configured arithmetically by both systems using spherical trigonometry as the basis of calculations. All navigation is based on intersecting LOPs, even the SATNAV system developed in the early 1960s.

This system works by an onboard combination of radio receiver and computer. The data used is transmitted in bursts from a rapidly moving satellite which is in a polar orbit. The continuous bursts of data also contain time signals and the satellite's known position.

The ship's relatively slow moving or stationary receiver receives this data and measures the doppler shifts in the sequential rapid transmissions caused by the relative motion between your receiver and the satellite.

The internal computer performs a series of rather complex calculations on the changing frequency of the transmissions from that satellite. It then draws mathematical LOPs, finds the intersection, and displays or prints your position, velocity, and much more. The accuracy to a ground station can be about 50 meters (yards) and to ships at sea 200 yards. However it wasn't until late in 1971 that this type of accuracy was achieved.¹

The one thing all three of these systems have in common is that the lines of position are all drawn on the surface of the Earth, which drastically reduces the number of possible positions. Even if you are in an airplane or submarine, your position is, relatively speaking, on the Earth's surface. A surface is further divided into land and sea areas which are all additional reference points when we are trying for a fix. The Earth also has a magnetic field that tells us north from south, as well as celestial bodies that appear to rotate from east to west as the day progresses.

Our celestial navigation by sextant depends upon our ability to "shoot" (measure angle of elevation from the horizon) certain of the brighter navigational stars whose geographical positions are easily determined. The navigator picks them out through familiarity with the various constellations, which, though the stars do move, change shape so slowly that a lifetime could pass before any change could be detected by so crude an instrument as even the best sextant in the world.

With a sextant you can shoot a particular star and then correct the angle for various mechanical and observational errors. What you really want is the angular distance of the star from your zenith. But since the horizon is 90° from your zenith, you can subtract your measured angle and determine the distance of that star's zenith from yours. From this you can get an LOP just like we did in drawing # 1. Repetition of this process, using other stars, will develop a fix as shown in drawing # 3.

Now let's turn to navigating in space. The only thing that the stars in any constellation have in common is that they all share the same general direction from Earth. They have little else in common except that they are all a part of our galaxy. Although each star itself is in very rapid motion in relation to our Sun and the rest of the stars in that particular configuration we call a constellation, they are so distant from our Earth that they seem to be stationary. Were this not true, the "fixed" stars of constellations would become unrecognizable in a short period of time. We know from historical records that they stay the same.

Michael Collins said, "The basic idea behind the Apollo guidance and navigation system was simple enough. It all began with the stars, whose position in inertial space was well

¹p. 1047, AMERICAN PRACTICAL NAVIGATOR, Bowditch, 1977, Government Printing Office

known and unchanging.... They are so far away, of course, that they appear the same whether one is on earth or a mere lunar distance away."²

While preparing for the Moon landings he claimed that navigation was his personal hair shirt. He goes on to say, "I had made several trips to Massachusetts Institute of Technology near Boston, and had tried my level best to suffer through a couple of weeks of "simple" explanations of the system by their experts, but I always came away shaking my head."³

Perhaps he felt he was being told nonsense something like, "The framus wittigates on the thrum rod activating the holcroid. Once it dizzies you are halfway home." Over the years whenever I run into something that doesn't make sense I have great problems with it. I cannot memorize it and I can't work with it.

For their navigation package NASA went to MIT early in the game and asked for a method that would give the Apollo program the ability to go to the Moon and back. A couple of professors produced the package on time. In fact it was one of the few times that anyone met a NASA schedule.

Michael Collins was designated the navigator for Apollo 11. In his book he lists the 37 navigation stars they were to use, plus their corresponding octal numbers which identified them to the computers. Here's how Michael explains that navigation package.

"The astronaut, peering out through either his telescope or his sextant finds one of the chosen few, superimposes a + on it, and pushes a button at the instant of perfect alignment. He then tells the computer which star it was, by numbers. Repeating this process on a second star allows the computer and the platform to determine which way the spacecraft is pointing. So we now know which way is up? Well, not exactly, because "up" is a rather fragile concept meaning away from the center of the earth, a direction opposite the gravity vector used to clutch us tightly by. But suppose we cannot even see the earth in our window, suppose we are floating free of earth's gravity. What now, M.I.T.? Back to our friendly stars. We simply define a new up-down and left-right, using the stars in place of earth. All will be well as long as we all play the game by the same rules, as long as the ground controllers send us instructions using the same stellar frame of reference. Now we are free of all terrestrial conventions and can correct our course to and from the Moon by pointing in the proper direction relative to the stars."⁴

Collins seems to be saying that the sextant had a cross hair in its optics. But sextants don't have cross-hairs. Curiously, I went sniffing through his book and found out that sure enough he was talking about a sextant. Almost 100 pages later he continues:

²p. 288, CARRYING THE FIRE, Collins, 1974, Ballentine Books

³p. 288, Ibid.

⁴p. 289, Ibid.

"Unlike Gemini, however, Apollo has a fancy computer tied to the optics, and now I call on it for help; it responds by swinging the sextant around until it points at where it thinks Menkent is. Aha! There it is, in plain view, and it's a simple task for me to align the cross-hairs precisely on it and push a button at the instant of alignment. Now I repeat the process using Nunki, and the computer pats me on the back by flashing the information that my measurements differ from its stored star angle data by .01 degree. It displays this information as 00001. In M.I.T.-ese, a perfect reading of 00000 is called five balls."⁵

Aha! There it is, in plain view: he does claim his sextant has a cross-hair, but this cannot be true! A sextant is an instrument that uses mirrors mounted on a calibrated movable leg. The essence of the instrument is to superimpose one object over the image of another thereby measuring the angle between them. On Earth, one of the objects is usually the horizon but here he is measuring the arc distance between two stars. As I said, there is no reason to have a cross-hair.

The instrument he probably means is a theodolite. This is a telescope with cross hairs with accuracy greater than a sextant; although it is extremely hard to believe that a pilot turned astronaut doesn't know a sextant from a theodolite.

All the measurement of the arc angle between two stars could do was align the capsule. That was done by azimuth and elevation by comparison to the ship's IMU (Internal Measuring Unit). The stars are unchanging to instruments as gross as the finest theodolites in the world; Collins accomplished nothing more than allowing them to know the ship's heading to the accuracy with which the shot was made.

The stored angles they speak of are the arc angles of separation between any two of the navigation stars. The "five balls" was part of the razzle-dazzle in that they only told whether the shots were accurate or not. It was an obfuscation, and this man — who was specially trained by MIT in space navigation — never figured it out.

Imagine that your ship is in a very high orbit around the Earth. Also imagine that you have a gunsight right down the center of the ship. Now you point the whole ship at one particular star and then take great pains to damp out all the ship's motions so you're still "aimed" at that star. After one orbit, as you came out from behind the Earth, you look for that star. Would you be shocked to see that the star was still in the gun sight? In fact, would you be surprised to see it stay there, day after day, no matter the time period? Six months later the Earth will have carried you halfway around the solar system, but your ship would still be pointing at that star. In fact, that same star should be fixed in your gunsight for years.

We are familiar with the astronauts speaking of sequential sunrises and sunsets and we can picture this happening as we look out a window. However, even if the ship were not in

⁵p. 373, Ibid.

an axial rotation of 18° per minute, this still couldn't happen. Since the ship's orientation cannot change during the orbit, even if the cockpit was loaded with windows, there would come a time when the Earth was at the rear of the ship. Only a spaceship in powered flight could follow its nose around a planet. If it were in orbit it could not do this without fracturing Newton's First Law of Motion. The law says that a body in motion tends to stay in motion.

Each particle of that space ship is a body of mass, and gravity (whatever it is) treats each without preference. For the nose to be more attracted than the tail would violate that law. But, while none of the astronauts seem to say they look out the same window, you are led to believe this is what they are describing. Only in science fiction films can a Star Trek-type ship orbit a planet nose first.

Yet on the Gemini 12 mission that's precisely what was claimed. In this case the capsule wasn't following its nose; it had its nose pointed down at Earth. In fact, they also had the Agena target ship doing the same thing. While they were docked to the Agena, Buzz Aldrin and Jim Lovell gave the Agena commands to assume a vertical position. They then undocked, backed away, and made taut the tether they had fastened to the Agena. The next 2 hours were spent steadying the capsule so that it would remain in the same position relative to Earth.

After two more orbits they let go of the Agena, ". . . and there we were — two dead vehicles captured by gravity in a vertical position going around the Earth."⁶ How can this be?

Yet even in drawings that show orbiting capsules in *The Illustrated Encyclopedia of SPACE TECHNOLOGY* each capsule flies around the Earth maintaining its attitude by rotating once each orbit in relation to the surface of Earth instead of to the rest of the universe as it must actually do.

Michael Collins said the stars are unchanging. So unchanging that, to this day, we can only directly measure the distance to less than ten thousand stars out of the billions that surround us. This measurement can be made only because of the difference in apparent position of a star in relation to stars that are optically close to it but which are far more distant from Earth. Only after the Earth has moved 186 million miles to the other side of the sun in its orbit can the movement be measured.

This angular shift is called the parallax of a star. It's so small that it can never be measured by any device that mechanically divides the circle like a sextant or theodolite. Parallax is measurable only by photographic methods. It can't be eyeballed. The measurement is accomplished by optically enlarging photos taken by astronomical telescopes at each extreme of our orbit. The photos are then compared. If a star shows any displacement the magnified movement is delicately measured and compared to the known

⁶p. 132, *HEROES IN SPACE*, Bond, 1987, Basil Blackwell Inc.

arc distance separation of the adjacent stars that haven't "moved" in that same photo. The greater the displacement (parallax), the closer the star.

Its actual distance can then be calculated by plane trigonometry, using the distance the Earth moves in six months as the baseline (186 million miles) and the angle of displacement measured from the photos.

Alpha Centauri, which appears to be one star seen by the naked eye, is actually a triple star system. At 4.3 lightyears distance from Earth it has the greatest parallax of any star. When measured by the 93 million miles the Earth moves during one half of an orbit it shows a parallax of .75 seconds of arc.

If we tried to use the distance to the Moon (239,000-miles) as a baseline the angle would be 389 times smaller, or .0019 seconds of arc. On page 248 the 1993 World Almanac lists the parallax of almost 100 of the closest stars, and the smallest parallax listed is .01 seconds of arc. So Mr. Collins, regardless of what you were told, a cross-haired sextant, couldn't possibly have measured these angles. Nor can anyone navigate the solar system using a mechanical division of the circle on the movement of even the closest stars.

Collins says he was thrilled when the unit flipped up its five balls in praise, but this represented .01° accuracy — not an exceptional result by today's standards. There are 60 nautical miles to a degree and .01° equal .6-nautical miles. Many navigators on small wave-tossed boats equal this performance. The SATNAV system with its 50-meter accuracy makes .6 nautical miles look amateurish. The new surveying SATNAV instruments claim accuracy within inches. In the next section we will see how that .01° accuracy compares with the rest of NASA's claims.

Collins seems to believe that his measurements resulted in a navigational fix. He says, "For example, I was trained to navigate back from the moon by using my sextant to measure the angles of five selected stars and the Earth's horizon; however there was no way I could determine our position as accurately as the giant earth-based radars..."⁷

He then correctly added, "Our own ability to navigate home independent of Houston is very poor when we are close to the moon, so for the time being we are dependent on earth tracking for our position."⁸

In the next section we will examine the actual ability of radar to have fixed their position. In his new book LIFTOFF he admits, "By comparing the position of the stars with the stable table [IMU], and noting the gimbal angles, it was possible to calculate the direction in which the space craft was pointed. This procedure did not explain where in space the craft was located, only the direction it was pointed."⁹

⁷p. 151, LIFTOFF, Collins, 1988, Grove Press

⁸p. 288, CARRYING THE FIRE, Collins, 1974, Ballentine Books

⁹p. 131, LIFTOFF, Collins, 1988, Grove Press

Then he goes on to tell us that the where was given by three accelerometers that sense motion and update the position by computer calculation. However, he writes, "In actual practice the state vector was loaded into the Command Module computer on the launch pad and updated periodically in flight by information telemetered from the ground."¹⁰

As I read about NASA's MIT way of lunar navigation I began to wonder how I would navigate to the Moon. It took about three days to dissect their methods, and another three days of insanity of trying to create my own. I became more confused with each passing hour until I just gave up one night and went to bed early. I had a dream in which I was lost in space. In desperation I looked out the window and saw the clearly visible planets and Earth. I wished I was in a boat because there you can steer for anything you can see. Then it dawned on me that celestial navigation had to be invented on Earth because once out of sight of land every wave looks like every other wave. All I had to do was aim for the Earth and tell the computer to give me a little Kentucky windage for lead.

I realized that there are no mists, storms, or fogs in space to hide my destination. Despite what the astronauts claim, one can see the sun, stars and planets all the time by just changing windows. Provided one has a little fuel to waste, all you have to do is lead your target and point the nose that way.

For more concise navigation the equatorial plane would have to be defined by at least three stars which are coincident with it and by simply measuring the azimuths and elevations to any three planets. Then by consulting an appropriate almanac we could accurately locate our position.

7.1 ADDENDUM 12/96

All navigation is based on our ability to dissect the circle. Our mathematical ability to do this is magnitudes of order past our physical ability. As Collins finally admitted, the only thing a star can do is to determine the axial roll, pitch, and yaw (attitude) of a space ship. The astronauts have always claimed that Harth radar was used to fix their position. This is impossible! And although I tried for years to work out a simple method of space navigation based on the observation of the planets I repeatedly failed. It probably can be done but because the planes of the planets are tilted to ours it introduces one more factor. By the way, the Moon also bobs up and down like a merry-go-round horse in an 18-year period called the Saros cycle.

I have just figured out that this radar business was just another NASA half-truth and that the only accurate method would be to use three or more antennas as distance measuring equipment (DME). Naturally they would all have to be located on the hemisphere

¹⁰p. 132, Ibid.

that was in visual sight of the ship at the time. The huge radio dishes would have been preferred because they are directional and can seek and peak a signal but other antennas would also have worked. All they needed then was to know the geodetic distances between the antennas and the exact time the ship's signal was sent. This could have been done either by transponder responding to a signal from a master antenna, or by a very accurate shipboard clock. The resulting accuracy in position could be less than 100 feet. By using this method, depends on electronically dividing a second instead of physically dividing a circle.

The hard part would be determining the direction and magnitude of the engine burn. This is because the ship is being influenced simultaneously by Earth, Sun, and Moon, and all of these forces are changing as the ship's position changes. In addition, both Moon and Earth are also moving. Complicated, yes, but not impossible. Because of the half-truths concerning the radar fixes, I had begun to doubt even the unmanned probes.

8 EVERY SHOT — A HOLE IN ONE

Despite the fact that NASA's space navigation process was something of a sham, they claimed astounding accuracy in everything they did. Nine times in a row the Apollo capsules slipped into lunar orbit without needing a major burn to correct their trajectory. Then they elaborated on their accuracy. The LEM, with its center of gravity far above the single rocket engine powering it, landed within spitting distance of the target site five out of six times. It was guided by Houston Ground Control operating at a distance of 230,000 miles. All this accuracy was at the end of a radio and/or radar transmission loop of two and a half seconds duration. Yet 25 years later, they still can't land the shuttle here on Earth if there are clouds over Kennedy Spaceport!

More importantly, six times in a row the top half of that awkward LEM machine made precise rendezvous with the command capsule after lifting off from the lunar surface. All this using a dynamically unbalanced vehicle. To top off the phenomenal navigation and micro-control of their rockets, they made nine deadly-accurate re-entries into the Earth's atmosphere, again apparently without the need for any major corrections.

Once upon a time I was a young, good-looking carpenter. A rich middle-aged golfer hired me to frame and sheathe a big lawn shed over the weekend. I arrived at his place at seven on Saturday morning and started the job. When he came out he asked me if I was a golfing man. I told him that being a caddy when I was a kid was as close as I cared to get to the game. His superior smile told me all I needed to know, but then he introduced me to my "helper" who blushed. She was his gorgeous young wife. Then he left to catch a fast eighteen at the local links.

By nine a.m. his wife and I were old friends as she helped me hold up and plumb and brace the walls. Once the braces were set I intended to make my move, but his car zipped into the driveway. Damn! He must have seen my eyes light up when he introduced us, or he knew her better than I did. Exiting his car, he wore a different kind of smile as he proudly handed me his score card. The man had played only nine holes on one of the roughest courses in the county. Imagine that! On a busy Saturday he had raced through the front nine in about an hour. Not only that, according to his card, he had scored a hole in one on each tee.

I asked why he hadn't played the other nine holes? He smiled and said, "I quit the game while I was ahead." Looking back — with twenty twenty hindsight — NASA did the same darn thing: scored nine holes in one and quit the game.

The authors of most of the books I read for reference (over and over again) accepted every pronouncement that NASA made without question. They even embraced their astounding navigational accuracy! It was as if Moses himself pointed out each law on the tablets as God enunciated them. I also began to suspect that maintaining a governmental press card is a matter of practicing the philosophy of the three monkey brothers (Speak, See, and Hear) whose last names are No-Evil. In any case, it seems every author suspended his critical faculties when NASA spoke.

Michael Collins, the navigator on Apollo 11, waxed ecstatic when he claimed: "On the return trip, the atmospheric "re-entry corridor" or zone of survivability, or whatever you wanted to call it, was only forty miles thick, and hitting a forty-mile target from 230,000 miles is like trying to split a human hair with a razor blade thrown from a distance of twenty feet. Granted, the primary responsibility for keeping the razor blade aimed precisely toward the absolute center of the hair would be the job of powerful ground tracking radars, coupled to gigantic computer complexes... The key to it would involve measuring the angle between a selected star and the moon's or earth's horizon, but how accurately could this be done?"¹

Ostensibly, on the outwardbound trip, our Earth based radar would have had a distance reading on the capsule until it was out of range. That distance was surely much less than 10,000 miles. After that only a radar transponder could accurately give its distance almost all the way to the Moon. However, even with a transponder, nothing we had then, or have now, could have given Houston an accurate bearing. Without that, all that could have been known was that the ship was somewhere at the base of a large, rapidly expanding cone.

The power of a radar transmitter to hit the Moon is not in dispute here. Collins noted,

"As early as 1963, the DSIF had bounced a radar signal off the planet Mercury, over 60 million miles away, so we weren't too concerned about its power, but its accuracy was of vital concern to those of us who would be navigating with its help."²

Real accuracy of bearing, for space navigation, is something that radar didn't possess, doesn't possess, and never will possess. A radar beam simply spreads too much for the exact accuracy required by space navigation. Even light spreads. If you take a powerful flashlight with a 3-inch parabolic reflector and shine it at your feet, the spot of light is almost the same diameter as the lens itself. Shine it across the street and the beam has spread to 24 inches. It spreads even though the reason for the imperfect parabolic reflector is to keep the light rays as parallel as possible. The same imperfections apply to radars.

Yet the Apollo 10 carrying John Young, Tom Stafford, and Eugene Cernan was allegedly tracked by radar as they came around from the back side of the Moon, after the LEM had

¹p. 65, CARRYING THE FIRE, Collins, 1974, Ballentine Books

²p. 103, Ibid.

separated from the command capsule. Peter Bond said "... the Madrid tracking station picked up two craft flying in formation as they rounded the east limb of the moon."³

Most of us think that a laser beam is a coherent beam of absolutely parallel light rays. It is coherent but the parallel part is not precisely true. Even laser light spreads slightly. According to Richard Lewis, one of Neil Armstrong's jobs was to set up a 17.9-inch square laser reflector on the Moon so that we would know within 75 meters the distance of the Moon. When the Earth laser was "Aimed and fired through the telescopes, the laser beam made a splash of red light on the Moon about 2 miles in diameter encompassing the mirror."⁴

Working out the trig, we find that the each edge of the beam dispersed .000239°. ⁵ If such a test was actually made, a reflector could have been placed on the Moon by a probe just the same way that Surveyor I I I was landed. This practical demonstration shows that neither beam, light, nor radio waves, consists of parallel beams. In fact, current radar beams have a horizontal beam width that ranges from .65 to 2° and a vertical width from 15 to 30°. This accuracy was current about a decade after the Moon shots ended. ⁶

At the average distance of the Moon, Earth's radar beams were a minimum of 2711 miles in diameter. ⁷ Yet NASA claims they were able to detect the command module at that range. Richard Lewis in writing about the Apollo 12 mission reports, "The Control Room people exhaled with an audible sigh. Conrad reported that his instruments showed Apollo 12 to be in a 170 by 61.8 mile orbit. Earth radar refined this to 168.8 and 62.7 miles (nautical)."⁸

To make such a claim NASA had to be able to resolve, in range, a virtual fly speck of a command ship orbiting that close to the Moon. And, at the same time, they had to resolve the bearing. Range without bearing means as little as does bearing without range. The American Practical Navigator has this to say about resolution of bearing when speaking of using radar to navigate. "However, if a visual bearing is available, it should be more reliable than one obtained by radar."⁹ Visual bearings are usually run with a pelorus which is nothing more than some type of "gunsight" affixed to a base that is divided by degree marks. A quarter of a degree in accuracy is considered excellent.

Without getting into the technicalities of radar pulse lengths, which determine resolution of range, let us examine an operator's radar screen. It is a CRT (cathode ray tube) that displays the target as a blip of light. If Houston had 24-inch screens at that time, (very

³p. 179, HEROES IN SPACE, Bond, 1987, Basil Blackwell Inc.

⁴p. 69, THE VOYAGES OF APOLLO, Lewis, 1974, Quadrangle

⁵Tan Angle = 1 mile / 239,000 mile Angle = .000239731 degrees

⁶p. 944, AMERICAN PRACTICAL NAVIGATOR, 1977, Bowditch

⁷Half width = (tan .65/2) * 239,000 = 1355 miles Diameter = 2711 miles

⁸p. 98, THE VOYAGES OF APOLLO, Lewis, 1974, Quadrangle

⁹p. 961, AMERICAN PRACTICAL NAVIGATOR, 1977, Bowditch

doubtful) half the screen's diameter would have represented about 240,000 miles. If detection were possible the command module at a distance of 60 miles from the Moon would have made a blip about .003-inches away from the background bounce that represented the Moon (the diameter of a human hair).¹⁰ Even if the capsule was caught at the edge of the Moon, how did the technicians measure that on a curved glass screen? And how many times could they electronically change the scale?

In a book by NASA engineers published in 1963, they write about radar altimeters. We find, "The range is limited to near orbital altitudes of a few hundred kilometers above the surface."¹¹

In a similar situation Skylab was launched on May 14, 1973. It had an attitude problem (like me). Despite the fact that its orbit was fixed close to Earth, it still needed constant accuracy in alignment. For this purpose it carried two systems, one composed of control-moment gyroscopes (CMG), and the other, a thruster attitude control system (TACS). David Baker said this about Skylab's attitude problem, "Yet although the combined CMG/TACS equipment could achieve pointing accuracy of (plus or minus 2 degrees), the sensitive solar telescopes needed a much finer targeting system than that."¹²

Yet, in page 373 of his book, Collins claimed the Apollo missions operated at .01° accuracy! Did NASA forget how to make such an accurate IMU (Inertial Measuring Unit) between the launch of Apollo 17 and the launch of Skylab? Or did NASA lie and give Collins a navigational figure 200 times more accurate than reality allowed? Or did Collins lie? Remember it takes five balls to shoot for the moon!

Time after time during the Apollo missions, NASA described the course correction "burn" performed halfway to the Moon as 'minimal'. At the start of each trip, using this plus or minus 2° standard for an Apollo mission, I calculate a circle of uncertainty at the end of the 239,000-mile trip at 16,692 miles in diameter.¹³

At the halfway mark the circle of uncertainty around the Moon would be 8346 miles in diameter. One could be over 4,100 miles off course and possibly only detect half of it. A burn to change inertial vector of 50 tons of a space ship by a few degrees, would certainly not be a small affair, because the center of mass would want to stay on that old course.

Here on Earth our vehicles rub away inertial vectors by friction. A car does it with tires that scrub by friction on the roadway as it changes direction; an airplane by the resistance or friction of the air developed in banking; and a boat by the high friction of the water. However, in space there is no friction! Cancellation of the inertial vector requires a burn

¹⁰ $12 \text{ in} / 240,000 \text{ mi} : x \text{ in} / 60 \text{ miles} = 720 / 240,000 = .003 \text{ in}$

¹¹ p. 184, ASTRONAUTICAL ENGINEERING AND SCIENCE, 1963, Stuhlinger, Ordway, McCall & Bucher, McGraw-Hill

¹² p. 456, MANNED SPACE FLIGHT, Baker, 1981, Crown

¹³ Semi Diameter = $\tan(2 \text{ degrees}) * 239,000 = 8346 \text{ miles}$

at right angles to the course powerful enough to accelerate the ship so that the center of mass is on a new vector heading for the lunar ring of entry. More importantly, an error of this magnitude would cause many more frequent adjustments in course.

From the Earth, the Moon's area of this circle of uncertainty is 218,829,885 square miles.¹⁴ To find the odds of hitting the entry target ring around the Moon we must first find the area of the plane surface of the Moon. It is 3,664,353 square miles.¹⁵ Collins claims the ring of return to Earth is only 40 miles thick, and if I generously allow the ring of entry to the Moon to be 5 times that size (200 miles), the total area encompassed would be 5,147,185 square miles.¹⁶ Subtracting the Moon's area from this leaves us with a target area of 1,482,832 square miles.¹⁷ This seems rather large. However, in comparison with the 218,829,885 square miles of uncertainty we find the probability for hitting that ring with only one burn to be — .67 percent.¹⁸

If NASA made no other corrections, as they claim, they would have only one chance in 147 of slid in g into the lunar ring of entry. This figure is derived by comparing the area of the lunar entry zone and the area of uncertainty.¹⁹ To claim to have done exactly this, eight times in a row, against odds such as these, boggles the mind — not to mention Murphy's Law!

It is even more unbelievable that Houston, at the long end of a 1.3-second transmission time lag, was supposed to make Go-No-Go lunar landing decision for each of the LEMs. This means that anything transmitted took 1.3 seconds to get to Houston, then after a decision was made, it took another 1.3 seconds to get the information back. Would you like to drive in traffic like that?

Harry Hurt writes how the LEM was roughly 7,000 feet above the Moon's surface waiting for the Go-No go decision from Houston. "According to ground based radar, the spacecraft was diving toward the lunar surface a good fifteen mph (twenty-three feet per second) faster than called for in the flight plan."²⁰ Wow! Their resolution in range was better than anything ever done before. Or since! Not only could that radar tell its exact altitude, it could also divine its velocity down to one foot per second. Wow!

Despite all this exactness, the Eagle Lander of Apollo 11 fame missed the chosen landing spot. Michael Collins writes, "Of course, the ground can take its own measurements as well, but it has no way of really judging where the LM came down, except by comparing Neil and Buzz's description of their surrounding terrain (lurain?) with the rather crude maps Houston has."²¹ (By "ground" Collins means "mission control").

¹⁴Circle of uncertainty) = $\pi * 8346 * 8346 = 218,829,885$ square miles

¹⁵Area of Moon = $\pi * 1080 * 1080 = 3,664,353$ square miles

¹⁶Area Moon plus entry ring = $\pi * 1280 * 1280 = 5,147,185$ square miles

¹⁷Area of target ring = $5,147,185 - 3,664,353 = 1,482,832$ square miles

¹⁸Probability = $1,482,185 / 218,829,885 = .0067$ or .67%

¹⁹Odds $218,829,885 / 1,482,185 = 147$ to 1 against

²⁰p. 162, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

²¹p. 407, CARRYING THE FIRE, Collins, 1974, Ballentine Books

By what magic could this happen? In fact, the next day Houston still couldn't figure out exactly where the Eagle had landed. "For \$64,000, we are still trying to work out the location of your landing site, Tranquillity Base. We think it is located on LAM-2 chart at Juliet 0.5 and 7.8 ... we are wondering if Neil or Buzz had observed any additional landmarks ... which would confirm or disprove this." Collins continues, "No wonder I couldn't find the LM; nobody seems to know where the bugger came down!"²²

Then General S. Phillips, the man who originally made the incriminating notes on North American Aviation, and who was now head of NASA, issued an edict. He demanded pin-point landings from then on despite lunar Mascons (abrupt gravity changes). One of NASA's navigation experts, Emil Schiesser, then proposed to track the spacecraft's orbit by the doppler effects created by their radio transmissions as the spacecraft moved. They had all the Apollo 11 transmissions on tape. He said he could use the minute frequency shifts to calculate the orbit.

"With this predicted pattern of frequencies in front of us, we can watch what the actual frequencies are, and calculate the difference. Then we can use the difference between the predicted and the actual frequencies to decide how far off target we are. It was Tindall reflected, "astounding " — simple and obvious after you heard it, as elegant solutions seem always to be.

No matter what the source of navigational errors — mascons, venting of the spacecraft, changes in trajectory from firing of the R.C.S. thrusters, or an imprecise burn — Schiesser had given them a way to determine precisely how much they needed to change the planned course of a descending LEM."²³

This method presupposes that the radio used in tracking has absolute frequency control down to the millionth of a cycle. Even if they had this astonishingly accurate instrument, NASA still had no more than range without bearing. Still Schiesser was regarded as a genius for thinking this up. I was surprised at first that NASA didn't promote him for a Nobel Prize, but then I learned that NASA was using this rather obvious method before 1963.²⁴

To further disparage this crowning jewel, self-placed in NASA's navigational crown by NASA's other experts in the summer of '69, consider one more tidbit. The SATNAV system, which depended upon doppler changes, had been fully deployed in 1964.²⁵

With the later missions, Richard Lewis quotes Houston watching the LEM land during the Apollo 12 landing. "CAPCOM: Intrepid, Houston. You're looking good at 8. [Eight miles uprange from the landing site.]"²⁶ In fact, they looked so good that the LEM was

²²p. 432, Ibid.

²³p. 383, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

²⁴p. 182, ASTRONAUTICAL ENGINEERING AND SCIENCE, 1963, Stuhlinger, Ordway, McCall & Bucher, McGraw-Hill

²⁵p. 1029, AMERICAN PRACTICAL NAVIGATOR, 1977, Bowditch

²⁶p. 106, THE VOYAGES OF APOLLO, Lewis, 1974, Quadrangle

intentionally aimed at the Surveyor 3 lunar probe. Indeed, it parked within 100 meters of the crater rim that held the old Surveyor. Here's their version of that tale:

"At midnight Houston time, November 18, four days after Yankee Clipper's encounter with lightning, Emil Schiesser stood behind two Martin contractor personnel at their consoles in a corner of the first floor of the Control Center, near the computers. As the LEM Intrepid appeared at the edge of the moon, the screens began to fill with the tracking data they had been waiting for. The three of them began filling out their cheat sheets, more formally known as Procedure Sheets — they looked something like tax forms — copying the numbers from the screen. Then as Conrad and Bean streaked across the face of the moon under powered descent, the three of them began figuring out the value for Noun 69 — by hand. The Control Center's computers didn't know how to do something as simple as multiply two numbers, Schiesser said, and they hadn't bothered to bring in a mechanical calculator. They scratched out their calculations, passed the number to the Trench, who gave it to Flight, who told CAPCOM to transmit it to the crew."²⁷

Man! What accuracy! Big computers that don't multiply? Trajectory ballistics by hand? In seconds? Golly! Hooray for Hollywood! How can anyone disbelieve this?

Below Harry Hurt has transcribed the conversation between Conrad and Bean as they left the LEM which absolutely verifies that Richard Lewis's statement is true.

"Conrad ventured a few more steps away from the LM, steadied himself in the powdery surface dust, and started scanning the surrounding moonscape. He promptly spied the half-sunken metallic object he was looking for."

"Boy, you'll never believe it! Guess what I see sitting on the side of the crater? The old surveyor!"

"The old Surveyor!" Bean Echoed. "Yes, sir!"

"Does that look neat!" Conrad declared, laughing with glee. "It can't be any further than six hundred feet from here. How about that?"²⁸

Add to the "If that don't beat all" category in grandpaw Ben's book of hillbilly records the following NASA fact. "A few years later, after the four LEMs following Intrepid had each descended to within a few yards of their targets, ..." ²⁹

Golly! "Within a few yards." Don't that beat all? Sho' nuf!

²⁷p. 385, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

²⁸p. 193, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

²⁹p. 386, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

9 THE NUMBERS GAME

NASA has one of the best public relations (PR) departments of any agency in the country. Our taxes pay for the propaganda produced by this bureaucracy to keep us convinced at all times that NASA is 100 percent for the flag, God, science, motherhood, and the American way. The only thing they seemed to have missed in the button pushing was apple pie! And they probably claimed somewhere that space research helps make better apples. No matter what transpired over the last 35 years, in the end, NASA came out smelling like a lilac bush in bloom.

Never mind the normal disasters of incredible cost overruns. Forget the snail-like progress. Down through the years there were only two problems that really set NASA back on their heels. The first and worst was the barbecue that someone threw for Grissom, Chaffee and White. The second occurred almost 20 years later on January 28, 1986 when a few million pounds of liquid hydrogen and oxygen exploded, searing the Florida skies and destroying the Challenger Shuttle and its full crew.

Since only fools refuse to realize that in blazing new technologies there "be" hidden dragons with diamond-hard flesh-ripping teeth, the second disaster worked its way out of the public's system in short order. The Challenger explosion called for another government committee. This one was the Rogers Commission, and its job was to point the fickle finger of fate at a culpable culprit.

This turned out to be the people who made the sectional gaskets for the solid fuel rocket booster called an SRB. You may remember committee member and Nobel Prize winner Richard Feynman demonstrating on TV how the gasket material cracks when placed in a glass of ice water. The committee claimed that the cold temperatures that morning allowed the "lower" gasket to leak, thus allowing the burning rocket fuel to slice through the gasket and the joint when the burn line reached that level. Then the blazing hot gases lanced across the separation and stabbed into the cryogenic storage tank. Simple case, spectacular and deadly effect. Right? Wrong!

Collins reports that four sections comprise an SRB.¹ He also tells us, "On the other hand, the pieces of the right SRB corroborated the fact that a failure had occurred in the joint between the two lower segments — the aft field joint."²

¹p. 210, LIFTOFF, Collins, 1988, Grove Press

²p. 225, Ibid.

In Liftoff the Collins book, on page 226, there is a very clear three-dimensional illustration, labeled "SRB joint cross-section" which shows the joint in great detail. Right next to it is a drawing of the shuttle before launch. A bold arrow starts at the joint detail and extends to the SRB's "lower" joint. He states, "The Rogers Commission interviewed more than 160 individuals and amassed 12,000 pages of transcript."³ It is too bad they didn't look at the TV pictures of that launch that clearly showed the spear of flame emanating near the top of the SRB rocket.

As usual with government committees, their conclusion seems neither fits the facts nor the photographs. As another example, the Warren Commission told us that President Kennedy was shot from the rear, but the films taken at the time show h is head to be the only object in history that recoiled from being hit by a bullet by moving into the direction from which the bullet came. Indeed, I saw a government MD on TV declaring that living objects frequently recoil toward the bullet. That Commission apparently also pointedly ignored the fact that a bolt-action Carcano rifle, the alleged weapon of assassination, cannot be fired (period) as fast as the shots recorded on the radio sound track.

Similarly, the Rogers Commission ignored the visual evidence that everyone saw first hand. We saw, within seconds of the explosion, a magnified film clip that showed a stabbing bolt of flame lancing across the separation distance between the solid fuel booster (SSB) and main cryogenic fuel tank. It crossed the gap and vaporized the thick foam that insulates that tank, thus exposing the incredible cold metal walls to an awesomely hot flame.

In that instant, thermal stress destroyed the tanks integrity allowing the liquid fuel to escape. This, in turn, upset the balance in pressure on the tank's common diaphragm that separates the liquid hydrogen from the liquid oxygen. The diaphragm shattered allowing both liquids to mix. Yes, the flame from the booster was present, but it wasn't necessary to trigger the explosion that followed. Static electricity from the released gasses would have provided ignition in any event. That bolt of flame originated near the top of the SRB not the bottom! They would have had a much more credible supposition if they had told us it was the top joint.

The lancing flame we saw on TV originated too high up to have been a joint. It pierced the booster on a line drawn between the center of the booster and the main tank. This means that the inner ceramic liner of the booster wall was chipped (spalled) at just that point. Had it erupted from anywhere else on the perimeter it could not have hit, and therefore, eaten through the insulation to destroy the main tanks.

Although ceramic lining material is tough stuff it has one drawback: it spalls easily. You can scour and clean the porcelain (ceramic coating) on your stove forever, but don't tap it with a hammer, especially on the metal side. If you do, the porcelain will instantly spall

³p. 225, Ibid.

away from the metal leaving a small round section bare of ceramic covering. On a kitchen stove this is only a cosmetic problem, but in a solid fuel rocket it's disastrous. The instant the fire line hits that level the spall will fall free leaving the bare metal wall to disintegrate. Then a spear of fire, driven by the internal pressure, will leap out radially from the wall.

As I reviewed the information at hand on this disaster, I found myself wondering if someone had deliberately destroyed that shuttle. It wouldn't have been very difficult. In fact, it would have taken just one well-placed rifle bullet.

Try this conjecture on for size. Some place in this big world, there is a small group of religious fanatics that are determined to keep man out of space, because "the heavens belong to God". They could arrive in a van with a raised cap and park there, with ten thousand others, for the big lift-off. Let's assume a sharpshooter smacks a single round off the booster's edge just where a line drawn between the common centers of tank and booster would intercept. He does this after ignition, but before the hold-down latches release. The ceramic liner of the booster wall spalls. However, the spall is held in place by the solid fuel. The sound and fury of the Challenger's engines would mask a silenced rifle shot. Even a person right next to that vehicle wouldn't have heard it. That's quite a supposition, isn't it? And yet, immediately after that explosion, why were the launch facilities re-fenced to keep spectators even farther away?

The first disaster should have, and almost did, destroy NASA. However, their PR people and allied cohorts in high places were allowed to use self-inspection, stonewalling and obfuscation of the Apollo flight numbers as their way out of the barrel. It was a obvious obfuscation at that, but it worked. In fact, it worked so well that we are still a bit confused about it some twenty years after the fact.

The obfuscation of the public in general, and the press in particular, centered around NASA's renumbering of the Apollo missions. Before the fire Grissom's mission was called Apollo 1. It was touted as the first of the Apollo series.⁴ When Collins writes about Grissom's flight he says, "Gus Grissom was talking about getting Apollo 1 airborne before the end of the year, ..." ⁵

The fact is that every author who writes about the Moon landings also seems a bit confused about the numbering. Even Collins, the astronaut, seems confused as he reports in a huge footnote:

"It would take bookkeeping more precise than mine to explain the various systems of nomenclature in their entirety, but the highlights are: the Grissom-Chaffee-White flight would have been called Apollo 1. It was called 204, because it was to be carried aloft by the fourth booster of the second Saturn series, the Saturn 1B. After the fire, the numbers were changed, and the Schirra flight

⁴p. 277, CARRYING THE FIRE, Collins, 1974, Ballentine Books

⁵p. 255, Ibid.

became known as Apollo 7 because it had been preceded by six unmanned test flights. It was also still 204, since it used Grissom's booster. The Borman-Collins-Anders flight was called 503 because it was the third flight of the Saturn V, following the unmanned test flights 501 and 502. Sandwiched between Schirra and Borman was the McDivitt flight, which had so many different numbers at one time or another that I won't even attempt to list them."⁶

Then later he writes of the 012 capsule (the one that burned) as if it were now a part of the Gemini Program, "Grissom's 012 was not about to fly with the Gemini 12 shot scheduled in November, but was daily slipping farther into 1967."⁷ Gemini 12 lifted on November 11, 1966 and it was the last, and official end of the Gemini Program.

Frank Borman has written this, "During 1966, NASA had conducted three unmanned flights to test the gigantic Saturn launch rocket."⁸ Which flights were they? Had NASA answered such questions these doubts would have been resolved.

After the fire, without any sleight of hand, the press might have questioned why NASA was planning to send up a manned flight in an already obsolete capsule atop a Gemini Saturn using the 1B engines. Logically, wouldn't this then be another Gemini flight?

But NASA's officials used a little number magic and renamed Apollo 1 as Apollo 4. This explains the reason why one reference book refers to it as Apollo 1 and others as Apollo 4. A question that springs to mind is if that really was number Apollo 4 exactly which flights were Apollo 1, 2 and 3?

Mr. Gray also seems confused about the numbering system, but then to straighten it out he claims, "For reasons that would make sense only to a librarian, this flight was designated Apollo 7. (Apollo 1 had been set aside at the request of the widows for the flight that never took place, Apollo 2 and 3 never existed, and Apollo 4, 5, and 6 were unmanned flight tests.)"⁹

However, earlier in his book he tells us that in the spring and fall of 1966 two unmanned Apollo flights were indeed made.¹⁰ On the other hand, didn't Frank Borman tell us there were three Apollo flights that year? See what I mean? Everybody seems to have been baffled by bullshit!

Collins reported that the first Saturn V flight was on November 9, 1967 and it was, "A nearly perfect flight, it was not only the maiden voyage of the Saturn V but..." "That test flight took place close to 9 months after the fire. It also seems to show that NASA's zero test policy was a macabre joke. And it proved that Apollo 1 was actually Apollo 1.

⁶p. 277, Ibid.

⁷p. 261, Ibid.

⁸p. 169, COUNTDOWN, Borman & Serling, 1988, Morrow

⁹p. 261, ANGLE OF ATTACK, Gray, 1992, Norton

¹⁰p. 211, Ibid.

As noted before, the 1B was too small to go to the Moon. Only the Saturn V could make that weighty haul, but at the time of the fire the Saturn V was still in development. For all I know it may still be in development. Bill Kaysing is positive the Saturn V never flew. Collins had this to say about the 1B rocket after the fire, "But we still had a hell of a long way to go; we weren't going to get Wally and crew airborne until summer 1968 at the earliest, and they were going on a puny Saturn 1B rocket."¹¹ Note his accurate — for once — adjective, "puny"!

No matter how you look at it three astronauts died in a fire in an obsolete capsule on top of a rocket far too small to do the job. Why were they in there? The Apollo 7 boosted October 11, 1968 still using the 1B engine. Flight 503 flew on December 21, 1968 and Collins wrote of this flight, "502 had more than its share of problems, and had barely limped into earth orbit. The first stage had developed severe oscillations, two out of five second-stage engines had shut down, and the guidance system had overcompensated and put the vehicle into an orbit whose apogee was a hundred miles too high."¹²

Introducing even more confusion about the numbering Mr. Hurt writes the following paragraph.

"The first series of unmanned Apollo missions, three far less ambitious earth orbital flights, were nearly catastrophic embarrassments. Apollo 4 suffered a fuel spill and a major computer malfunction. Apollo 5, the inaugural test flight of the lunar module, experienced two equally serious problems. When the hastily refurbished spacecraft finally got off the ground, the LEM's engine, which was supposed to fire for thirty-eight seconds at full power, only managed to burn for four seconds at ten percent thrust. Apollo six failed even more miserably. Due to a sequence of booster engine malfunctions, the spacecraft was catapulted into the wrong orbit before it got a chance to show its stuff."¹³

On Apollo 6 in "Journey To Tranquility" we find, "A film taken from a high-flying aircraft equipped with a radar-directed camera actually showed a piece of the rocket breaking away."¹⁴

And there is yet another piece of confusion, whereby the authors of the above book tell us that Collins 502 flight was in reality Apollo 6. "Yet in April, when Saturn V made its second flight, designated Apollo 6, it looked for a time as though they might have another chance."¹⁵

Harry Hurt writes this of the Apollo 7 which only orbited the Earth.

¹¹p. 284, CARRYING THE FIRE, Collins, 1974, Ballentine Books

¹²p. 307, Ibid.

¹³p. 95, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

¹⁴p. 226, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

¹⁵p. 225, Ibid.

"But unbeknownst to the general public, the Apollo 7 astronauts were flirting with disaster from the moment they left the launch pad. While the mass media celebrated the fact that America had at least gotten back in the space race, NASA quietly compiled a list of no less than fifty malfunctions that had occurred during the mission. The most ominous included repeated errors by the spacecraft's guidance and control systems, inexplicable surges in orbital velocity, a nine minute communications blackout, and the loss of three days bio-medical monitoring data."¹⁶

Isn't it strange? Every test flight of the Apollo Program is about as bad as it can get, yet for the next nine in a row, most problems disappear.

Still confused? So am I. In desperation I sent a letter to NASA asking for a complete listing of every launching for the three space programs. I am still waiting for an answer. Why didn't I get a response listing the launchings, if they weren't playing a numbers game? Surely, they couldn't be confused too.

¹⁶p. 96, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

10 EXPLAINING HEAT & COLD

The single greatest misconception we have about space is that it is cold. NASA, that great science machine, has never done a single thing to dispel this great myth. If anything they have promulgated this myth for their own advantage. Even though one definition of cold is the absence of heat, space is an absolute exception to this rule.

As a kid reading thousands of science fiction stories I would find a repeated situation similar to this, "Jay Vordak was in serious trouble. He had been able to extract the Krentak Ray generator from the vault on the Vulsa ship but the vault guard robot had smashed his suit heater in the last seconds of the fight. It was as dead as the robot. The ray would save his people from being enslaved by the Vulsa only if, in the next few minutes, he could reach his ship hidden amongst the huge boulders on this barren rocky asteroid. He could feel the bone numbing cold of space rapidly sucking the heat from his body."

Until I began to write this book I never realized that space is neither cold nor hot. Only matter can have these attributes and space is the absence of matter. Science claims that heat is a measurement of molecular activity. Since there are very few atoms or molecules to be agitated in space, space can neither be hot nor cold. As a near perfect vacuum, it is, at the same time, the greatest insulator and the best heat sink in the universe. It exists, unaffected, next to the incredibly hot surfaces of stars. It remains just as completely unaffected near the absolute zero temperatures found on comets traveling through interstellar space.

Before we can understand what happens on a space ship, or to a space suit, we need to understand a bit about heat. This section is a little refresher course for those who once knew a lot about heat, and a beginner's course for those who only know that ice is cold and a fire is hot.

Temperature — The measurement of the molecular activity in a mass; the sensible heat energy in a substance.

Heat is measured in degrees by various temperature scales. Despite an act-of-Congress many years ago that demanded we adopt the metric system and use the Celsius (C) temperature scale, most Americans still subconsciously think in terms of Fahrenheit (F) temperatures, and also in the English system of weights and measures. We cling to it, not because it is superior, but because we were brought up using it and we can instantly visualize its various units.

We know an ounce of weight; a mile of distance and a degree of Fahrenheit temperature. We Americans do not yet think in terms of grams, kilometers nor degrees Celsius. The Fahrenheit scale places the freezing point of water at 32° F and the boiling point at 212° F. This scale is awkward and admittedly hard to calculate with, but we've used it from our earliest schooling, and in this case familiarity breeds ease of use.

The Celsius scale calls the freezing point of water zero and the boiling point 100°C. It is simple for those brought up using it, but confusing to those of us who weren't.

There is also the Kelvin scale (K) which uses the Celsius degree and calls minus 273° C absolute zero. For the purposes of easy reading and comprehension I shall use degrees Fahrenheit for our discussion. However, for heat calculations concerning radiant energy it is necessary to use the Kelvin scale. Here is a table showing a short range of every day Fahrenheit temperatures and their Celsius and Kelvin equivalents.

Fahrenheit to Celsius to Kelvin									
F	59.0	64.4	69.8	75.2	80.6	84.2	89.6	95.0	100.4
C	15	18	21	24	27	30	33	35	38
K	288	291	294	297	300	303	306	308	311

Heat Conduction — The process by which molecules transfer heat energy to another molecule.

All materials conduct heat. But metals are much better heat conductors than non-metals. Liquids are much better conductors than gasses. Flowing substances conduct heat much better than their stationary counterparts. Most organic substances are poor conductors of heat, and a vacuum is the worst heat conductor of all.

Insulation — Any material that is a poor conductor of heat.

The best insulating materials only slow the conduction of heat. A man in a modern fire fighter's suit can walk bravely into the flames surrounding a burning oil well and survive. However, he will survive only as long as hoses keep spraying him with cooling water to remove the heat. Should the water pump fail he has only seconds before he is parboiled and minutes before he is cremated, despite the suit.

A vacuum is the best insulator because it is composed of nothing. Being nothing it has few molecules or atoms to agitate, and therefore, cannot transfer heat by conduction or convection. The best known application of this fact is the Dewar flask used in cryogenic work or its household relative, the common glass thermos bottle.

The principle of a thermos is simple. The inner section is composed of a narrow necked ultra thin glass-walled bottle fixed within a slightly larger ultra thin glass-walled bottle.

The bottles are hermetically sealed together after the air between their adjacent walls is evacuated by vacuum pump.

To reduce the heat loss even further the outer and inner surfaces are mirrored. This stops some of the radiant heat loss because it is reflected back and forth by the mirrors. A cork is used as a stopper in the opening, because, in addition to the ease with which it compresses to make a tight seal, cork is also a very good insulator. In fact, cork was one of the best heat insulating materials before space-age materials became available. This entire assembly was usually placed in a steel case and covered with a removable cup that threaded onto the main case. A good thermos can hold either boiling hot beverages or ice cold drinks, and can almost maintain the starting temperature for hours depending on the ambient temperature of the environment.

Radiant Heat — Heat energy transferred by an electromagnetic wave.

The only way heat energy can be transferred through a vacuum is by radiation. The Stefan-Boltzmann law is used to calculate the quantity of heat being radiated, or received, by a substance.¹

The radiant heat transmitted from a unit area of surface is proportional to, and thereby mostly dependent on the fourth power of the absolute (Kelvin) temperature of that surface. The words "fourth power" sound complicated, but they simply mean multiplying a number by itself four times. For example the fourth power of 2 is $2 * 2 * 2 * 2$ which equals 16. The fourth power of 3 is 81. The number 3 is only 1.5 times greater than 2.² However, if we divide the fourth power of 3 by the fourth power of 2 we find it is 5 times as great.³ Therefore, a body radiating heat at 3 degrees K radiates five times as much heat as a body at 2 degrees K. This ratio drops quickly as the numbers increase.

The heat emitted is also dependent upon the coefficient of emissivity. This is a number which ranges from zero to one. A perfect emitter would be 1 and the perfect mirror would be 0 because it would reflect all the heat that hit it. It doesn't matter if the surface is emitting or absorbing radiant heat the coefficient is the same.

A constant, called Stefan's constant, is also necessary to produce numerically correct answers. The Stefan-Boltzmann formula produces numerical answers in watts. It can be converted to calories, a heat unit we're more familiar with, by multiplying the watts by 860.

The Sun's surface temperature is estimated at 6000° K.⁴ The radiant energy at this extremely high temperature is truly awesome. By using Stefan-Boltzmann's law we find that 73,487,090 watts per-square-meter is transmitted into space. After it has traveled 93

¹Stefan-Boltzmann's Formulae I (watts) = $eaAK^4$, with e = emissivity coefficient = .5, a = Stefan's constant = 5.6703×10^{-8} , A = area in square meters, K = temperature in Kelvin.

² $3/2 = 1.5$

³ $81/16 = 5.0625$

⁴p. 316, COLLEGE PHYSICS, "Tipler", 1987, Worth Publishers, Inc.

million miles to the Earth, this figure has been reduced to an average of 1353 watts per square meter above the atmosphere.⁵

Boiling — The vaporizing of a liquid by the addition of heat.

When we boil any liquid we produce a vapor of that liquid. In addition to the sensible heat (detected by a thermometer), each gram of vapor carries with it a much greater amount of non-sensible heat which is called the Heat-of-Vaporization. If the vapor is physically removed from the area the remaining liquid becomes cooler. The temperature at which a liquid boils is also varied to a great degree by the pressure. On top of a mountain where the atmospheric pressure is less, water boils at much lower temperatures. The freezing point of a liquid is also affected by pressure in a similar manner, but to a much lesser degree.

A tumbler of water will start to boil away without added heat as you increase the vacuum. In fact, if you had a thermometer in the tumbler, you would see the temperature of the remaining liquid drop as the vapor was pumped out. At a low enough pressure or a high enough vacuum you would also see some of the water turning into ice at the same time the rest was boiling. In effect, the remaining water is being refrigerated by the heat energy it is losing. Once boiling commences the pressure will drop much more slowly than in the beginning. The lower the pressure the harder the pump must work. Since each volume of water vapor is 1200-times greater than the water so vaporized, the pump must evacuate that much more volume.

If you didn't realize that you were removing heat by extracting the vapor you might conclude that a vacuum is inherently cold. Indeed, science fiction books, sci-fi movies, and television space operas have led us to exactly that conclusion. But this is not true. If space was as cold as we have been led to believe then any surface area of a space ship away from the heated sections could become dangerously weak and susceptible to failure. Too much cold, like too much heat, can seriously affect the structural integrity of most materials. During both the Arctic and the Antarctic winter, temperatures can drop below minus 60° F. Rubber loses much of its flexibility and metals become brittle. But this temperature, -51° C or 222° K, is relatively hot compared to absolute zero at -273° C.

Refrigeration — A process which cools a substance by the physical removal of heat.

Mechanical refrigeration uses a lot of power, heavy motors, pumps and a refrigerant to pump heat out of a well insulated container. The refrigerant must be able to store the heat it absorbs from the container and must also be capable of releasing that heat in the heat exchanger. Some type of pump is needed to move the hot refrigerant from the container to the heat exchanger and then bring the cool refrigerant back again.

The heat exchanger is vital because it transfers the heat to a heat sink which on Earth is either the air of our atmosphere or sometimes the water of a pond, river or ocean. Without

⁵p. 316, Ibid.

a place to dump the heat there would be no refrigeration or air conditioning as we know them. If you ran an air conditioner in a sealed room the temperature in the room would climb even though directly in front of the machine there would be a flow of colder air.

Explosive Freezing — The rapid decompression of a liquid or a gas.

In a CO₂ extinguisher, carbon dioxide, a colorless gas is stored under high pressure in a liquid state. When we pull the trigger the liquid, released from the pressure, rushes out into the air instantly exploding into a fine spray of extremely cold and frozen particles called dry ice. The latent heat is lost because of the tremendous change (drop) in pressure.

Fuel Cells — A generator that combines a fuel and oxygen, and primarily produces DC electricity and water instead of heat.

These units are similar to batteries. However, unlike a battery — which uses a chemical change to store electrical energy — a fuel cell uses a chemical process to generate relatively small amounts of electricity. Also, unlike batteries the fuel (chemicals) are not stored internally, but are fed in as the electricity is needed.

Spontaneous Combustion — A process where oxidation creates more heat than is being emitted.

The temperature will rise in a closed system (house, car, or LEM) when more heat is absorbed than given off. As you will see, a space ship or space suit is no different. In summation, if a vacuum was inherently cold we could air-condition and refrigerate simply by putting a vacuum chamber around the unit's radiator and then pulling a vacuum on it.

11 THE LEM'S PROBLEMS

11.1 Thermal Problems

At the start of the Apollo Program, Joe Shea, NASA's Chief Administrator, decided the Apollo capsules should rotate about their longitudinal axis to keep the heat shield warm enough not to crack on re-entry. They called this passive thermal control or PTC. Since the heat shield was covered by the service module until minutes before re-entry, what are they talking about?

Of itself, the rotation could neither heat the ship nor cool it. Maybe you've had the same experience, when you roast a whole chicken on a grill. It doesn't matter whether the skewered chicken is rotated 5 times an hour, or 50 times an hour. The chicken cooks in exactly the same length of time. The only thing that turning on a spit accomplishes is to cook the meat evenly.

On a space ship, axial rotation would distribute solar heat evenly, allowing the sun-side and shade-side hull temperatures to be fairly equal, as long as the ship wasn't pointed directly at, or away, from the Sun. But it would also greatly complicate the navigation. Not that the roll itself would be hard to compensate for, but at the time the IMU (Inertial Measuring Unit) and its associated computer would have had to cope with more than one set of problems at a time. This was when computer memory was small and computer operating speeds were much slower.

Indeed, Borman speaks of this twisting mode and says, "We were using passive thermal control (PTC), which involved turning Apollo 8 on its long axis facing the sun and then doing a slow roll."¹

Here is a man who earned a Masters in Engineering from California Institute of Technology and went on to teach thermodynamics at West Point. Yet, he seems ignorant of the fact that once the long axis (nose or tail) is pointed at the Sun the heat absorption is at a minimum, so that the entire sun-side of the surface will be evenly heated. Why would anyone bother to rotate the ship once it pointed at the Sun?

It took the Apollo ships about 90-hours to travel to the Moon and almost as long to return to Earth. During these periods of time NASA claimed both capsule and service module

¹p. 205, COUNTDOWN, Borman & Serling, 1968, Morrow

were air-conditioned using power from the service modules fuel cells and other equipment mounted there. To evaluate this system would require that NASA supply technical information about those systems, which unfortunately they will not give.

Nonetheless, we don't have such a problem with the awkward, unbalanced, Lunar Landing Module (LEM). This pile of tin was so fragile it couldn't support itself here on Earth, and exploded whenever tested in our atmosphere. It had a perfect record of disaster until it was used on the Moon. Then, eight times in a row, it worked perfectly every time by landing safely on the Moon's sunny surface.

The Moon has a two week day and a two week night. The first mission (Apollo 11), set down when the Sun was only 10° above the horizon ostensibly to avoid the heat of the noonday Sun. Later, Apollo landings took place later in the lunar day. And to add to the heat problem all the landings were within twenty degrees of the lunar equator.

Mr. Noble has this to say about temperatures on the Moon. "Surface temperatures range from about 243 degrees above zero Fahrenheit in the unfiltered sunlight at lunar midday, to about 279 degrees below zero in the depths of the lunar night..."² The figure must be substantially correct. If it wasn't, wouldn't the astronauts have reported it? This is hotter than boiling water. In fact, this is hotter than the pressurized water in most household hot water heaters and boilers.

Yet, over and over again, NASA preaches the "cold of space" doctrine. When Aldrin and Armstrong were sleeping on the Moon during the Apollo 11 mission, Harry Hurt wrote:

"Aldrin tried to curl up on the floor of the LEM, only to discover that he was too "Elated" and also too "cold" to sleep during the astronauts schedule seven-hour rest period before lunar take-off As he reported afterward, "The thing which really kept us awake was the temperature. It was very chilly in there. After about three hours it became unbearable. We had the liquid cooling system in operation in our suits, of course, and we tried to get comfortable by turning the water circulation down to a minimum. That didn't help much. We turned the temperature control on our oxygen system up to the maximum. That didn't have much effect either. We could have raised the window shades and let the light in to warm us, but that would have destroyed any remaining possibility of sleeping."³

Did NASA fail to make a system that could be turned off? Despite Aldrin's reported claim, the suit's cooling system cannot work in a pressurized cabin as we will see in the next section. In his book, all Aldrin has to say about that day is, "We didn't sleep much at all. Among other things, we were elated — and also cold."⁴ All of this seems very mysterious

²p. 272, WE REACH THE MOON, Wilford, 1969, Bantam Books

³p. 185, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

⁴p. 239, RETURN TO EARTH, Aldrin, 1973, Random House

since all the Moon landings took place during the lunar day. That's when the surface of the Moon is literally as hot as hell. If it's 273° F at midday wouldn't the surface be at least 200° F when the Sun is at 10°? Remember, on the Moon, the sun has been rising for over 24 Earth-hours to get that high.

Isn't it reasonable to assume that the Sun will heat every object on the Moon's surface to roughly the same temperature? Does the Sun not heat cars, houses and pavements here on Earth? Have you ever picked up a metal tool left lying in the summer sun? It can raise blisters on your hand if you're not wearing a glove. Is the sunlight on the Moon different than that on Earth? Yes it is! In fact, it's more intense, since it isn't diffused by an atmosphere as on Earth. That's why noonday temperatures are hotter than here. With the Sun beating down on the LEM how could it have been cold inside?

And as far as not being able to sleep in the sunlight, only vampires have that problem. Normal people often fall asleep on sand beaches and lawn chairs. Isn't that why God made eyelids, or why man created sunlasses and eye-masks?

When speaking about wearing a space suit Collins had this to say, "the astronaut would dissolve in a pool of sweat were there not some way to keep him cooled..."⁵ Undoubtedly he was speaking about a conditioned internal environment. Doesn't that mean the suits acted as insulation? Of course they did.

Obviously this entire story was scripted by the NASA "space opry" writers trying to obfuscate the fact that NASA claims that the LEM's cooling system could only cool the electronics. That system, if it ever existed, operated on batteries. Yet, there was no way to power the additional drain of an air conditioning system, had it been present. Murray & Cox writes this: "Because the LEM used batteries instead of fuel cells, oxygen didn't figure in the calculations about power supplies."⁶ Thinking about it, electronic equipment turns almost all the input power into heat. I don't believe the LEM system as described could ever cool that.

During the Apollo 13 mission NASA tells us about an explosion in an oxygen tank which bled out the other tanks and thereby depriving the fuel cells of the needed oxidizer. This left the astronauts totally dependent upon the LEM's batteries. As Murray and Cox report, "Bit by bit, the LEM was powered down to 15 amps per hour, and the astronauts, wearing thin clothing designed for a long trip in a confined space at 70 degrees, began to get cold as the temperature dropped below 60 degrees and kept going down."⁷

A prelude to this exciting story occurred on the Gemini 5 mission launched August 21, 1965. With astronauts Pete Conrad and Gordon Cooper on board, the fuel cells had an oxygen pressure reduction that went from 800 down to 120-psi. They powered down

⁵p. 116, CARRYING THE FIRE, Collins, 1974, Ballentine Books

⁶p. 426, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

⁷p. 428, Ibid.

which meant they turned off the capsule's air conditioner. It fell to 55-psi on the next orbit and then, "The miracle happened: the pressure began to stabilize, though at a very low level."⁸

It was later determined that the fuel cell heaters had failed and then the Sun's radiant heat had begun to warm the cells. Wasn't the Sun shining for the first 3 orbits? On that same page we find Cooper and Conrad complaining to ground control, that it was still too cold in the capsule. "We've been sitting here shivering for the last few hours."

During Gemini 7, Frank Borman, complained that the suit was too warm and that, "The cabin remained warmer than we wanted..."⁹ This was after they had turned down the cabin heat to as low a setting as possible. First question, why didn't Borman, the man who taught thermodynamics, insist on a simple on/off switch to the heat? Have you ever seen a vehicle where it was impossible to turn off the heat? The heat certainly had to be electrical. Why wasn't there a simple switch?

Second question, why didn't NASA use common thermostats such as we use in houses and cars? Third question, how could this capsule get so warm when it spent half its time in the Earth's shadow while the Apollo 13 got so cold spending all its time in the direct sunlight?

Let's review what NASA claims:

1. On the pad, the entire ship is air-conditioned by conventional air-conditioning powered from the ground at Kennedy.
2. The entire ship is air-conditioned in space, powered by fuel cells, until you lose power to run the air-conditioning system because the Sun is heating the whole ship.
3. Because you turned off the air-conditioner the ship gets colder.
4. The LEM had no air conditioning so it got even colder.

The lesson to be learned here is that the next time your air-conditioner is losing the battle with a summer heat wave you can make the house cooler by turning it off. All you have to watch out for then, according to NASA, is getting too cold if the heat wave persists. Conversely, if you feel cold next winter turn off the heat and open the windows. Makes sense in a NASA sort of way.

In the same way that the morning sun quickly warms the Earth's surface, the Sun on the Moon would heat anything parked there. We can calculate the temperature of the LEM after a few hours by adding up all the heat entering, and subtracting all the heat being emitted. The incoming heat was dependent on the heat radiated by the Sun, which

⁸p. 96, HEROES IN SPACE, Bond, 1987, Basil Blackwell Inc.

⁹p. 136, COUNTDOWN, Borman & Serling, 1988, Morrow

is added to by the astronauts' body heat, and by the heat loss into the cabin from all the electronic gear.

Since NASA has never answered any of my letters asking clarifying questions about the equipment used on the Apollo missions, I must make a few assumptions before using the Stephan-Boltzmann law of radiant heat to establish the temperature of a LEM parked in the Sun on the Moon's surface.

The first data requires that we calculate the heat from all sources. I have chosen an emissivity factor of .5 simply because that lies halfway between a perfect mirror and a perfect black body. The Sun impinges on the walls of the LEM with 1353-watts of solar radiation per square meter on the module's Sun side surface.¹⁰ Therefore the available heat absorbed is 676-watts per-square-meter.¹¹

We need to know the silhouetted area so I've assumed a diameter of 16 feet. This comes to 201 feet square or 18 square meters. Therefore, the total solar heat amounts to 12,168 watts per hour.¹²

The life processes of a normal human maintains a body temperature by generating 111 watts.¹³ Two astronauts on board adds 222 watts to the total. This is a grand total of 12,390 watts of input heat.¹⁴ If the LEM is not to become a sweltering death trap it must shed most of that heat which, in the absence of air conditioning, can only be done by radiant heat transmission. The emissivity factor is the same coefficient as used for absorption.

The easiest way to determine the answer is to find the temperature at which the LEM would radiate 12,390 watts from its shadow half. We must transpose the Stefan-Boltzmann formula to find that temperature.¹⁵ Before the LEM can radiate heat equal to the heat it is gaining, its temperature would climb to 120° C or 248° F.¹⁶ Since this calculation is very close to the astronomers' assessment of the Moon's surface I consider it to be basically correct. Did I miss something? How can a vehicle that starts out warm enough to survive in, become too cold to sleep in while parked in the blazing Sun?

The LEM stayed on the Moon for over 24 hours and during this time NASA tells us that our intrepid astronauts used it to sleep, rest, eat, and to eliminate waste in, when they weren't outside on the Moon's surface. By the time the program called for them to leave, the LEM had to be hotter than the ground. Yet our audacious astronauts calmly climbed

¹⁰p. 316, COLLEGE PHYSICS, Tipler, 1987, Worth Publishers, Inc.

¹¹1353 watts * .5 = 676.5 watts per meter square

¹²676 watts per square meter * 18 square meters = 12,168 watts

¹³p. 312, COLLEGE PHYSICS, Tipler, 1987, Worth Publishers, Inc.

¹⁴12,168 watts + 222 = 12,390 watts

¹⁵ $K^4 = I/A\epsilon\sigma$

¹⁶ $K^4 = 12,390 / (18 * .5 * 5.673 \cdot 10^{-8})$, $K^4 = 2.3810$, $K = 394$ K or 120 C or 248 F

the ladder and crawled inside to begin the trip back home. It must have taken a special kind of courage to crawl back into that oven. They really did have "The Right Stuff!"

If space is cold, why did they put radiators on the service module to not only cool that module but also to cool the command capsule? Surely there can't be different climatic zones out in space, one for close Earth orbit space and another for lunar space. If it was so cold why weren't unit heaters provided. After all, one of the first specs for the Apollo series of ships was that, "It would provide a shirt-sleeve environment."¹⁷

Aldrin space-walked on the Gemini 12. "While he was working outside on a daylight pass above the world, he could feel the strong heat of sunlight against the rear inner wall of the inflated suit, he almost burned his skin before he leaned forward again. An external zipper was located in that area and its metal parts had become intensely hot from absorbing solar radiation."¹⁸

Each complete Earth orbit constituted a "day" which is defined here as the time between the rising of two consecutive Suns. However, since the capsule orbited in about eighty minutes, this was a "day" which gave only about 40 minutes of daylight. In that 40 minutes his metallic zipper became hot enough to burn his back. But the metallic LEM of Apollo 11 fame, which stood on the Moon for almost 12 hours did not! In succeeding missions the LEMs were exposed for days. Yet, they did not heat up. Are the Sun's rays weaker on the Moon? Is space colder on the Moon?

NASA never quits trying to make us believe that space is cold. But they're wrong, because space is nothing! It is the Sun's radiation which causes heat. The LEM should have roasted our celluloid heroes soon after they landed, and long before they could blast off to make rendezvous with the command ship.

Murray & Cox wrote that Houston control was worried about the cold messing up the IMU and thereby losing its one hundredth of a degree angular accuracy. "His back room was posing the hair-raising possibility that if they turned off the command module's guidance system and let it sit in the cold"¹⁹ — Go figure!

If the cold of space can cool a ship, why did authors Murray & Cox write as follows after interviewing NASA experts? "In contrast, water was a huge problem. The electronics in the spacecraft generated heat which was carried off by glycol circulating through the system. The warmed glycol was chilled by running it through tubes encased in ice. The ice was made by the cold of space from water supplied by the LEM. As the glycol ran through the pipes, the ice vaporized and boiled away."²⁰

¹⁷p. 97, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Simon & Schuster

¹⁸p. 215, SUITING UP FOR SPACE, Mallan, 1971, John Day Co.

¹⁹p. 414, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

²⁰p. 426, Ibid.

Here these writers were told that NASA was worried about not being able to run the cooling system. But then we are told that Houston was worried about the cold disabling the IMU. That is not logical! The statements are diametrically opposed.

It wasn't the cold of space that made the ejected water turn into ice, it was the fact that space is an infinite heat sink. As we have seen, the heat from the electronic equipment is only a very small portion of the heat that had to be removed. The command ship should also get warmer every minute it spent in the Sun. How much water would the radiators have consumed to keep the ship cool during these two week trips in the Sun?

Collins asked this question in his first book, "What would the temperature be inside the spacecraft during the constant sunlight on the way to the Moon? With the sunny side baking and the shady side freezing, what would equilibrium conditions there be inside, where the softies lived?"²¹

I'd like to address a few words directly to Mike Collins. "Mike, after reading your book three times I think I've earned the right to be informal. Your book was published after the Apollo 11 segment of the grand ol space opsy was aired. Since you don't seem to remember how it really was, I would like to be helpful and remind you what it was really like. The advice is free, and I hope you will accept it in the same generous spirit in which it is given. After all, Mike, NASA may decide to re-activate your commission for the trip to Mars. Star Fleet Command did it to the fictional, Captain Kirk, and it could happen to you.

Mike, the inside of that ship will be just as hot as it was during the Apollo missions. And that was damn hot. I advise that next time you go to the Moon that you drink a lot of water, take a lot of those funny little salt pills and shower frequently. That way you will avoid the heat exhaustion you must have suffered the last time out.

Next problem. Let us return to May 1973 when a revamped Saturn V rocket carcass called Skylab was launched. The huge solar collector panels, designed to deploy from both sides of Skylab like diametrically opposed dorsal fins, failed during their planned extension. Eventually the hardy souls on board discovered that the micro-meteorite shield was carried away during launch, and ripped away one huge panel while it pinned down the second. How one shield (never described) could attack both sides of a ship still puzzles me.

Skylab's orbit was 250 miles high. Just before the 3 hour mark after the launch, "the environmental systems officer was swamped with information he never expected to see. Temperatures were all wrong, fluctuating wildly, but for the most part going in just one direction — up!"²²

This man, a contemporary of Aldrin, Collins and Armstrong, must have believed that space was cold; so cold that no plans had been made to use the great Joe Shea's thermal

²¹p. 64, CARRYING THE FIRE, Collins, 1974, Ballentine Books

²²p. 474, MANNED SPACE FLIGHT, Baker, 1981, Crown

roll. Remember, just a few short years before how Houston Control had made the go-no-go landing decisions for each of the LEM's as they descended to the Moon? Obviously such a decision was not left to the astronauts presumably flying the machine. NASA accomplished this miracle of modern telemetry despite a 2.5 second radio transmission loop caused by the 240,000 miles of distance?

Well, they must have fired all those old geniuses and hocked that equipment because this time, with Skylab at a range of 1,000-miles, nothing worked. Baker writes, "Toward the end of revolution 4 the Honeysuckle tracking antenna picked up attitude changes which took Skylab away from solar-inertial mode, causing the four ATM arrays to drift off their lock on the Sun. By the time Hawaii relayed telemetry from Skylab, the cluster had corrected itself."²³

The manned flight planned for the following day was cancelled. There was another NASA cliff-hanger in progress. If they aimed the solar collectors at the Sun, Skylab heated. If they shielded the ship by placing the rear end toward the sun they had little electrical power.

The whole problem could have been resolved in the planning stage if the designers had been told that space isn't cold. This way they could have designed the fin-like collectors to rotate 90°. Then the ship could have been pointed at or away from the Sun to control the heat while still collecting full electric power from the collectors.

By revolution 12 (about 12 hours after launch) the controllers were reading an interior temperature of 38° C (100° F) and a hull temperature of 82° C (179° F). It was also predicted that, "Temperature problems would become acute this day."²⁴ When launched the normal pressure inside Skylab had been intentionally vented to prevent the shell from bursting, then resealed when the pressure hit 58 mm-Hg (1.1-psi). They were supposed to begin pressurization with oxygen to 225 mm-Hg (4.3-psi) in preparation for receiving the astronauts.²⁵ But plans for all this were halted because the pressure induced by the extreme temperatures might have burst the hull .

I find this info a bit hard to believe. What does seem clear is that high temperature in a 70 % oxygen atmosphere could start another oxygen fire such as the one on Pad 34 that cremated Grissom-Chaffee & White.

Later that day the exterior sun-side hull temperature was 146° C (295° F) and directly inside the hull they were 49° C (120° F). On the exterior shade-side the hull temperature was 32° C (90° F) and inside that wall it was 21° C (70° F).²⁶ Assuming both sides had the same insulation, I cannot understand why there was a through-the-wall temperature differential of 175° F on one side, but only 20° F on the other.

²³p. 475, Ibid.

²⁴p. 476, Ibid.

²⁵p. 476, Ibid.

²⁶p. 476, Ibid.

Since Baker shows it's colder inside, than outside on the shade-side I must assume that he made a mistake and reversed these numbers. That is if there was ever any truth to any of these figures.

That's when they allegedly began to figure out how to jury-rig a sunshade that could be deployed by Pete Conrad and his merry men when they arrived on the scene. In the meantime they played attitude games with the machine to limit the heat rise. The following morning, however, hull temperatures rose to higher than 148° C (298° F) despite all the attitude manipulations.²⁷

What was never really mentioned or clarified by the author is the fact that, unlike the Apollo command ships and the LEMs, that Skylab spent half its time in the shadow of the Earth soaking up zero rays. Isn't space just as cold close to Earth? By late afternoon Wednesday (that same day) the internal temperature peaked at 51° C (120° F) and then began to drop slowly.

Is this another NASA joke? If it's not a joke then it is another NASA fabrication. Collins has this to say, "Without the shield as a sunshade, the temperature inside the workshop gradually worked its way up to 150 F."²⁸

In the meantime Houston control feared that the high temperatures had contaminated the existing atmosphere with carbon monoxide and that toluene diisocyanate was released from the materials inside.²⁹ They feared the lab would have to be purged many times to clear out the toxic fumes.³⁰

Since the rate gyroscopes (IMU devices) had failed, NASA's geniuses figured out how to tell the precise attitude from the temperature readings. At least that's what they told Baker. He writes, "For the past day or so, information from the rate gyroscopes on Skylab's precise attitude had become less and less reliable since they had not been updated by the Sun sensors locking on the solar disc and gradual drift carried them out of the precise calibration they had at the start of the mission. So controllers, who by now had developed a very precise knowledge of the effect minute attitude changes, had on the internal and external temperature, mapped the changing profile, observing fractional increase or decrease in temperature, to tell the guidance controllers the precise attitude of Skylab."³¹

This story is on the same level as that of Emil Schiesser and the doppler readings of the radio transmissions of Apollo 11 after which he knew exactly where that ship was. This, to my mind, is just as hard to believe as that tall tale.

On May 27, our space heroes finally boarded Skylab and deployed the parasol. Not, we are assured, without a terrible struggle. But since one tends to grow weary of NASA sagas

²⁷p. 477, Ibid.

²⁸p. 175, LIFTOFF, Collins, 1988, Grove Press

²⁹p. 476, MANNED SPACE FLIGHT, Baker, 1981, Crown

³⁰p. 479, Ibid.

³¹p. 480, Ibid.

lets move on. With the umbrella up the internal temperatures dropped to 46 °C (115° F) and the astronauts reportedly went to sleep in Skylab.³² Have you ever tried to sleep when it was 100° F, let alone 115°? Pete Conrad and his boys really played it cool. They had "The Right Stuff!"

The next morning the temperature was down to a comparatively chilly 42° C (107.6° F) and they began regular operations. It finally dawned on me that the inclination of an orbit determines the percentage of time the ship spends in the Sun, because our poles are inclined 21.5° to the path of our revolution. Therefore a ship with an inclination of 21.5° South would spend 50 % of its time in the Sun. If that inclination was 68.5° North then it would spend all of its time in the Sun. The Skylab, in its 50° North inclination would spend 80 % of its time in the Sun.

It strikes me as strange that Skylab, composed of the same materials as the Apollo 13 capsule, overheated while that Apollo capsule which spent all its time in the Sun, became ice cold. Remember that, according to NASA, the 6 LEMs that stood on the broiling lunar surface for days on end, without air-conditioning, also became cold.

A ship heading toward the "new" Moon is 240,000 miles closer to the Sun. Are we to conclude that the Sun's heat diminishes the closer you get? Or can it be that the Van Allen belts sort of gather up the radiation and also concentrate the Sun's heat?

11.2 Loading

To reduce the weight of the Apollo 11 capsule, NASA was reduced to scraping away Mylar insulation. This play paid off because it enabled the intrepid, Neil Armstrong to jink sideways a hundred yards and safely land on the last of his fuel. ""Thirty seconds," says Houston. That's how much fuel they have left. Better get it on the ground, Neil.""³³

It seems logical to me, that if the Lem could have carried more fuel, NASA would have enlarged the fuel tanks instead of scraping Mylar? As shown by the following set of charts, the Moon's gravity was as expected, or lower. It couldn't have been stronger because each mission added more scientific equipment for the ALSEP science tests. The series of four charts below labeled figure "a" through "d" respectively, can be found on page 2-2 in a 1973 NASA publication entitled APOLLO 17 Preliminary Science Report.

³²p. 487, Ibid.

³³p. 406, Ibid.

MISSION DATA ON WEIGHT, TIME OUTSIDE LEM AND DISTANCE TRAVERSED							
Mission	Traverse Distance		Time Spent Outside (hr)	Experimental Equipment		Samples Retrieved	
	km	mi		kg	lb	kg	lb
Apollo 11	0.2	0.1	2:24	102	225	21	46
Apollo 12	2.0	1.2	7:29	166	366	34	75
Apollo 14	3.3	2.0	9:23	209	460	43	95
Apollo 15	27.9	17.3	18:33	550	1212	77	170
Apollo 16	27.0	16.7	20:12	563	1241	94	207
Apollo 17	35.0	21.7	22:05	514	1131	110	243

If we compare the weight carried by Apollo 11 to that of Apollo 16 we find an increase in weight of 1016 pounds.³⁴ The chart says very clearly that the load from the extra equipment represented only scientific experimental equipment for the ALSEP experiments. But please note, I find no reason to consider the Rover as experimental equipment. The Rover weighed 460 pounds³⁵ bringing the total increase in weight to 1476 pounds.³⁶

If an 80 pound back pack life support system (PLSS) lasted each astronaut for four hours, as NASA's claims, then they had to carry either eight more units or re-fills on the Apollo 16 mission. That is an additional load of up to 640 pounds, bringing us to a possible maximum of 2116-pounds additional weight on the descending LEM.³⁷ I cannot begin to guess how much additional "landing" fuel this much extra weight would require even if we suppose that nothing else had to be added to extend the total time spent on the Moon. This added mass is over a ton. All I can say is they must have scraped off an awful lot of Mylar!

11.3 Solar Radiation

This may be the proper place to speak of the extra deadly radiation that is emitted by solar flares. Collins seems to have fluffed off this problem when he wrote, "In similar fashion, the Van Allen Radiation belts around the earth and the possibility of solar flares require understanding and planning to avoid exposing the crew to an excessive dose of radioactivity."³⁸

If NASA had so much understanding of solar flares why did they send Apollo 8, 10, 11, and 12 out just when, as was known to any astronomer that the sunspot cycle with

³⁴1241 - 225 = 1016 pounds

³⁵p. 95, VOYAGE THROUGH THE UNIVERSE - OUTBOUND, 1991, Time-Life

³⁶1016 + 460 = 1476 pounds

³⁷1476 + 640 = 2116

³⁸p. 101, CARRYING THE FIRE, Collins, 1974, Ballentine Books

maximum flare activity was reaching its peak? Why did they continue the missions over the next two years as that peak slowly declined? If those vaunted 7 million dollar space suits were any protection against that degree of radioactivity, the atomic core that melted down the pile in TMI(Three Mile Island) could have been removed by now, instead of continuing to tick away like an atomic time bomb.

Collectively all our astronauts spent about 90 days in space during the Apollo years. Since the radiation from the completely unpredictable solar flares travels to the Earth or Moon in less than 15 minutes, not much could have been done about avoiding a flare unless you carried lead coffins to hide in. But then if you had the rocket power to add all that weight you surely wouldn't have spaced out in paper thin hulls, a 5 psi pure oxygen atmosphere, nor scraped Mylar from the LEM to reduce its weight.

Later, in this book you'll see NOAA's records of the solar flares for those months the Apollo crews were in space; far beyond the protection of the Van Allen belts. When you do, I feel sure you'll agree they should have received enough solar flare radiation to constitute a fatal dose. Parenthetically, years before the Apollo missions a camera satellite called "Big Bird", orbiting below the Van Allen shield, used gold canisters to protect the film from fogging due to solar radiation. Apparently our astronauts were more than golden.

12 BLOWHOLES OF SEA & SPACE

Blowholes — A nostril at the highest point in the head of cetaceans. A vent to permit the escape of a gas.

A hungry whale descends into the black depths of one of Earth's oceans to feed. When the oxygen stored in the whale's body begins to run out, the whale surfaces and explosively discharges the used air and expired water vapor from its blowhole. The exhaled gases, at the whale's body temperature, are rich in water vapor. When vented they form a mist upon contact with the colder air over the water. This is called a spout. The 19th century whalers kept lookouts aloft on the whaling grounds to watch for spouts, because the spouting of a large whale is visible for miles. When a spout was spotted the lookout would call out, "Thar she blows!"

The officer of the deck would inquire the direction of said whale with, "Wharaway?"

The answer would be given in relation to the ship's apparent heading such as, "Three points off the starboard bow."

Remember that these were iron men in wooden boats. Few of them were charm school material, with "The Right Stuff, so one must forgive them for bellowing back and forth like the low class louts they were. The blowhole, vital to the whale's survival, was also its Achilles' heel. Several decades ago another species of mammal plunged into the black depth of space. These astronauts were iron men in titanium ships who ascended into the sea of space close to our atmospheric shore. Then somehow, they began to change and evolved into celluloid heroes who stroked our egos while feeding their own. They told and ostensibly showed us how they worked wonders as they descended onto the Moon's surface. But, like the whalers, this group of astronauts also had blowholes that were vital to their survival. These also turned out to be their Achilles' heel.

Space Proctology — The examination of astronauts' blowholes.

Now let's practice our new found expertise as space proctologists by making a thorough examination of the astronauts' blowholes. According to NASA our mighty mammals daring the darkness of space were just as dependent upon their blowholes for survival as are the cetaceans of the sea. The only difference is that space mammals use their blowholes to keep them cool enough to survive — not for breathing.

Despite the fact that the Apollo landings took place over 20 years ago and were not classified, NASA to this day will not release technical information. Perhaps the CIA worries that this information might help Iraq capture the Moon or give Khadaffi permanent camel-grazing rights up there. Just as NASA reports different oxygen pressures when Grissom was cremated, I found two different values listed for the pressure inside the suits. To give NASA the benefit of my doubts I will discuss only the pressure of 4.5 psi (which is the average between 3.7 psi and the 5.2 psi) that Frank Borman speaks of in his book.

We have all seen the astronauts as they gamboled about on the Moon's surface. After all, it was their hour in the Sun. In 1969, we assumed that the do-all backpack provided for all the necessities of life. Since space was "cold" the pack must also provide sufficient warmth, while maintaining proper pressure, oxygen, dehumidification, etc.

In 1969 nobody talked about cooling the air, and it was in my head that the suits needed heat not air conditioning. After all, didn't space age electric heated gloves and socks make their way onto the market about that time? Had the problem been one of cold it would have been easily resolved by the application of small electric resistance heaters in the suit. With all the insulation in that suit a tiny heater would have been quite sufficient. However, as I watched their Moon prance I still thought about the cold of space. I finally realized that the temperature of the Moon during the lunar day is hotter than boiling water so I knew the real problem had to be cooling. The Sun drives the temperature of the Moon's surface up to 243° F. and it would do the same to an astronaut. Insulation does not stop the transfer of heat or cold. It just slows it down. No matter the thickness of the oven-mitt on your hand, if you keep it in a 243° F oven for a few moments your hand will begin to feel very hot.

NASA wasn't explicit about the specific location of the astronaut's blowhole but had I been part of the design team I would have followed nature's pattern and put it through the bottom center of the back pack. The back pack is called a PLSS. This follows NASA's strange compulsion to make abbreviations of everything. It stands for "Portable Life Support System." A PLSS ready to use weighs 84 pounds on Earth, 14 pounds on the Moon, stands 26 inches high, 18 inches wide and 10 inches thick.¹ The pack has a total volume of only 2.7 cubic feet, but NASA claimed it provided total life support for four long hours. The back pack holds an oxygen bottle, a carbon dioxide scrubber, a dehumidifier, a water bladder for the cooling circuit, another bladder water to be ejected, a heat exchanger, a radio that monitors bodily function, a communications radio with power enough to reach Houston, and 4 liters of water. To top that off, it also contains a battery large enough to power everything in that pack.

They claim to have sent the LEM onto the Moon with only enough air-conditioning capacity to cool the electronics, yet they put an air cooler in the suit. Was the suit on a different Moon? NASA claims that the astronauts wore long-johns into which had been sewn

¹ 26 x 18 x 10 / 1728 cubic inches = 2.07 cubic feet

thin water filled plastic tubes connected to a water filled bladder-reservoir. "... on Apollo a more efficient cooling scheme employed water-cooled underwear into which tiny plastic pipes were sewn."² Hot air in the suit, generated by the astronauts metabolic process, is apparently fanned across the water-filled tubing. The water is then pumped into a plastic heat exchanger in the PLSS. When the suit begins to heat up, the astronauts turn up the control which ejects the dump water from their blowhole over the heat exchanger. "The water was forced outside the suit, turned to ice and vaporized."³

The only advantage of plastic in a space suit is its flexibility. Otherwise, plastic is about the worst choice possible for a heat exchanger because all plastics are basically insulators. However, this system could work if the PLSS carried enough water. It is obvious that the unit apparently functioned perfectly because at the end of each Apollo mission our celluloid heroes returned to Earth none the worse for wear. Just to keep NASA honest, let's calculate the water required to do the job. The silhouette of an astronaut covers about 3/4 square meters. Using an absorption/emissivity coefficient of .2, the solar radiation absorbed would be 203 watts.⁴

According to the authors of First On The Moon each PLSS, "was built to catch and disperse metabolic heat generated by the astronaut at an average rate of sixteen hundred British Thermal Units an hour –".⁵ Since a BTU equals .2928 watts we have a total of 368 watts.⁶ This should be added to the Sun's heat value for a total heat input of 571 watts.⁷ However we should calculate the heat radiated by the shady side of the suit. Before proceeding we must determine a temperature for the air in the suit. The higher the temperature, the easier it is for the air cooler to do the job. Let's assume that their suits stayed at 100° F. Looking back to the Temperature Conversion chart we see that this temperature is 311° Kelvin which we need to know in order to use the Stefan-Boltzmann radiation equation.

We must invert the original formula to look like this.

$$I \text{ (watts)} = K^4 A e a$$

Thus we find that there are 80 watts being radiated.⁸ This must be subtracted from the 571 total watts, which leaves us with 491 watts.⁹ To round out the numbers we add 9 watts for radios, pump heat, etc. for a total of 500 watts.¹⁰ Since there are 860 calories

²p. 117, CARRYING THE FIRE, Collins, 1974, Ballentine Books

³p. 221, WE REACH THE MOON, Wilford, 1969, Bantam Books

⁴1353 watts/meter square x .2 x .75 = 203 watts

⁵p. 261, FIRST ON THE MOON, Farmer & Hamblin, 1970, Little, Brown & Co.

⁶1600 BTU x .2928 watts / BTU = 368 watts

⁷203 + 368 = 571 watts

⁸ $I \text{ (watts)} = 311^4 \times (.75 \times .2 \times 5.673 \times 10^{-8}) = I \text{ (watts)} = 79.6$

⁹571 - 80 = 491

¹⁰491 + 9 = 500 watts

per watt and, assuming we can work at 100% efficiency we must make enough ice to carry off 430,000 calories per hour.¹¹ In 4 hours that adds up to 1,720,000 calories.¹²

To lower the temperature of one gram of water one degree C requires the loss of one calorie of heat. Upon the formation of ice, a gram of water loses 80 calories. Therefore a temperature drop from 100° F (38° C) down to freezing (0° C) entails the transfer of 38 calories, and when that gram freezes it absorbs another 80 calories for a total of 118 calories per gram vented out the blowhole. If we divide that 1,720,000 calories by 118 we get 14,576 gms of water that we must eject.¹³ This is 14.6 liters, which equals .514 cubic feet.¹⁴ That would take up 1/4 of the PLSS's volume.¹⁵ The weight of this is 32 pounds on Earth, which is or 38 % of the total claimed weight.¹⁶

So let's take off the kid-skin gloves and get realistic. Using an efficiency of 40 %, which is still high compared to most mechanisms, and a suit temperature of 80° F, we find that 23.78 liters of throw away water is needed. This is 52.3 pounds on Earth, 62 % of the PLSS's total weight and .839 cubic feet which is 40 % of the unit's volume. Remember that the pack also holds an oxygen bottle, a carbon dioxide scrubber, a dehumidifier, a water bladder for the cooling circuit, dump water bladder for ejection, a heat exchanger, a radio that monitors bodily function, a communications radio with power enough to reach Houston. And it also contains a battery large enough to power everything listed above. Can you fault me for feeling that these packs were designed and fabricated by the Wizard of Oz?

If we divide the 23,788 gms of water by 240-minutes we get 100 grams a minute being spewed out the blow hole. At an efficiency of 40 %, 60 grams a minute of frozen vapor would escape the heat exchanger, making quite a whoosh as it ejected. Did anyone hear the astronauts make any whale jokes about their blow holes? When the other guy's suit vented, did any body ever shout? "Thar she blows!" Or is it that any type of venting simply not done in public?

Much more realistically our space heroes should have pranced about carrying a Robinson Crusoe parasol. Blocking direct solar radiation would have alleviated most of the heat absorption problem, at least while they were walking on the Moon. However, not only would it have affected their macho image by carrying a Mary Poppins umbrella, it would have been a severe impediment as they went gamboling about. Also, it might have pointed a hot finger at the naked LEM sitt in g in the broiling Sun without any type of shade. That's the very last thing that NASA needed.

¹¹500 watts * 860 calories/watt = 430,000 calories

¹²430,000/ hr * 4 hrs = 1,720,000 calories

¹³1,720,000 calories / 118 gms/ cal = 14,576 gms

¹⁴14.6 liters * .0353 liters/cubic ft = .514 cubic feet

¹⁵.514 cubic feet / 2.07 cubic feet = 25 %

¹⁶14.576 kg * 2.2 pounds /kg =32 pounds

NASA claims that rotation kept the command ship cool. Maybe the astronauts should have pirouetted like ballerinas as they went their merry way. But then would this have seemed less than masculine? In the end the only thing that could have preserved their lives for all those hours in that Sun was air-conditioning, which they didn't have. If they had really had suit air-conditioners that worked, every time the suit was vented into the high vacuum of space the rocket-effect should have been spectacular. A rapidly expanding fog of ice crystals would have reflected the brilliant unfiltered sun light; spraying millions of tiny diamond-like crystals about and producing a brilliant, dazzling and unforgettable display.

We can be sure our astronauts never released water in this manner, since, not one of the thousands of pictures taken on the Moon, or during the space walks, has ever shown such a display. NASA would hardly pass up a spectacular photo opportunity like that! Buzz Aldrin wrote that it was so cold in the LEM's cabin that he turned off his suit conditioner. On the other hand, Collins states, "Their allotted 2 1/2 hours goes swiftly and then they clamber back into the Lunar Module, shut the door, and repressurize the cabin."¹⁷ This is very strange, since the suit's conditioner, if it exists in the first place, couldn't possibly work in the LEM's pressurized cabin. It can only work in a vacuum. One wonders if these two astronauts went to the same Moon together?

Another logical problem is found in the ballooning of the space suit because of internal pressure. Since the beginning of science fiction a flexible cloth suit has been the standard garment worn in space. Collins speaks of the Apollo suit and claims that the internal suit pressure is only 3.7 psi.¹⁸ He goes on to explain how this inner tube-type ballooning from pressure is overcome. "Instead of having a simple restraining net, it controlled the shape of its inflated bladder by a complex array of bellows, stiff fabric, inflexible tubes, and sliding cables."¹⁹

The wall of a standard inner tube is a little over a sixteenth of an inch thick and it has only rubber in it. The rubber is very flexible even with 3.7 pounds of air in it. However, a bicycle tire's side-wall is less than twice as thick, yet it is laced with stiffening fibers. Even without pressure it is quite inflexible. The thicker the covering the more fibers it contains and, despite the shape, the more inflexible it becomes. No matter how much time and money one spends on a fabric suit it will still balloon. If you think a double layer of cloth with internal struts to hold the layers parallel would do the trick, think again! This would create skin stressed material which would become much stiffer.

Consider a deep sea diver's rubberized canvas suit. The suit is awkward and to say the least, uncomfortable, yet a diver can walk around in it and work in it — as long as the diver is careful to keep the internal pressure closely matched with the external water pressure. Should the diver accidentally let in an extra pound of pressure the suit will balloon. The

¹⁷p. 8, LIFTOFF, Collins, 1988, Grove Press

¹⁸p. 115, CARRYING THE FIRE, Collins, 1974, Ballentine Books

¹⁹p. 116, Ibid.

arms and legs will stick straight out with a force that is almost savage. And a diver's suit is completely waterproof. Even the slightest leak would allow air to leave or water to enter. But if his suit was closed with a long zipper would it still be waterproof?

A fabric space suit is sort of the obverse of a fabric diving suit. The first keeps the internal and external pressure matched, and the second keeps the pressure in. A fabric space suit must be designed to keep the vacuum out, but you can bet that oxygen would leak out through the smallest of pinholes. A pressurized oxygen supply might be able to keep up with a small pinhole or two for a while, but not with the leakage from a long zipper! Despite this Lloyd Mallan writes, "As a matter of fact, Hamilton Standard had already achieved a space suit with 93 percent of nude range (nude mobility) before October 1968, when they demonstrated it before the aerospace scientists and engineers attending the Fifth Annual Meeting of the American Institute of Aeronautics and Astronautics held in Philadelphia, Pennsylvania. Live demonstrations of the suit during the week long meeting attracted wide interest and attention – plus some disbelief. It was hard for some of the onlookers to believe that so much mobility could be designed into an inflated space suit."²⁰ Why do I suspect that this suit used a doctored pressure gauge, and was really inflated to much less the 3.7 psi?

Harry Hurt describes the cramped quarters of the LEM and explains that suits had a long crotch-to-shoulder zipper which could only be closed by another astronaut. This zipper starts at the front of the crotch and travels between the legs up the spine to the collar. Collins tells us that, "Interlocking rubber lips on either side of the zipper formed a pressure-tight seal."²¹ But no matter how many interleaving rubber seals there may be, it seems to me that every motion the astronaut makes allows the gaskets to leak a little, like a thousand tiny pinholes were present.

There are three pictures on page 412 of the book *Manned Space Flight* showing the 'new' Apollo pressure suit, which NASA called the AL7B. Around the neck is a neck-ring where the helmet can be secured. One can also see bellows around the elbows, semi-bellows around the shoulders; metal swivel joints on the thighs and the knees. There are also strange laced shrouds on the mid-forearm and the mid-shin. Are the shrouds pressure resistant closures? A football and a punching bag have laces, but these are only on the covering. The bladders inside have one-way air valves. How long would the air stay in the tires of your car if they were laced and/or zipped closed? How long do tires stay inflated with pinhole leaks?

The next strange thing these pictures show is the cable that Collins talked about. It starts on the back next to the zipper opposite the shoulder, but two inches lower. From there it goes into a piece of tubing that curves around the outer arm; then it proceeds to the middle of the chest above the sternum. It must be there to restrain any ballooning,

²⁰p. 239, *SUITING UP FOR SPACE*, Mallan, 1971, John Day Co.

²¹p. 79, *LIFTOFF*, Collins, 1988, Grove Press

which would cause the arms to rise at the shoulder. Any ballooning would exhibit itself as a force starting from the finger tips and acting on the whole arm, as a lever, against the attachment two inches below the joint.

This obviously puts a great tension on the fastener next to the zipper, and would tend to squeeze the chest from both front and rear with immense force. It would if it didn't rip the zipper apart. Zippers rip apart rather easily. I wonder what type of marvelous zipper was invented that they are still hiding from us. Why didn't NASA claim such a foolproof, impervious zipper as another spin-off against the taxpayer costs of the space race?

Every time we've seen the space suit it is covered with a white coverall, which makes one wonder. The neck ring indicates that this coverall must also be a pressure suit. It would make no sense to fasten the helmet to a non-pressurized outer garment. Another connection problem lies in the stainless steel rings which terminate the sleeves about mid-way down the forearms. How did they attach the gloves to this suit? What did they use, another leakproof zipper? Or were they fastened into a track with a twist and a click? Also how do you fasten the outer gloves which are apparent in every picture? Are the boots integral with this suit, or are there laces? Collins claims that his boots and gloves were pressurized, and that the gloves ... "When inflated they tend to become flat and bloated with fingers extended."²²

It is possible, of course, to make the boots and gloves as part of the garment. But how do you move your hands with the gloves ballooned at 4.5 psi? Did they have bellows and cables in the gloves too? No matter. I would like to see one of their gloves inflated inside of a vacuum chamber in which the pressure has been reduced to about 10.2 psi. I'd like to see the hand that could repeatedly flex this glove against the ballooning. A boxers speed bag inflates to 4 psi, but I'll bet that there's no man who could bend it in half like flexing the fingers does a glove!

On the other hand, maybe the gloves weren't pressurized! If they weren't then the wrist cuffs would have to be extraordinarily tight to prevent excessive oxygen leakage. Cuffs that tight would obviously impair the circulation to the point of gangrene. At least that's what happens to normal people who leave a tourniquet on too long. When our blood pressure is taken, a blood pressure cuff is used. Squeezing a small bulb provides sufficient air pressure to inflate the cuff. This in turn acts as a tourniquet and stops the flow of blood in the artery of the arm. The pressure needed is only slightly higher than the pressure developed by the heart which is 100 torr or 1.93 psi.²³ Then by listening to the equilibrium points one determine our arterial and venous blood pressure. The use of this cuff can border on pain, and one breathes a sigh of relief when the pressure is released. By the same token, a young man's penis when erect, is almost unbendable at an elevated blood pressure of 2.32 psi.

²²p. 79, Ibid.

²³p. 231, COLLEGE PHYSICS, Tipler, 1987, Worth Publishers, Inc.

Today many ambulance crews carry a low pressure emergency medical device called MAST pants. This acronym stands for Mobile Anti Shock Trousers. They consist of pants which contain a pressure bladder. They are put on accident victims and the bladder is inflated with air by a hand bulb. This provides sufficient pressure to force any remaining blood from the legs into the chest area. These pants are used as a last resort measure, and are only removed at the hospital.

According to my first aid instructor, tourniquets must be released every ten minutes or the affected tissues will die, and gangrene will set in. How did NASA create a form-fitting, full body bladder (including other bladders at the hands and feet) that aren't painful, or doesn't stop the flow of blood? Another thought! If the gloves weren't pressurized how could the human heart pump the blood from the hand at a pressure of 1.93 psi back to the heart against the suction of 4.5 psi? Did NASA modify their hearts? Were these men bionic?

Consider the common phenomenon of a "hickey", the red mark left after the vacuum induced by a kiss. A hickey on the human body results from a pound or two of pressure differential. In a full vacuum the hands and feet would become a festering mass of hickeys. That is, unless the gloves and boots were pressurized.

At the start of this chapter I noted we would only deal with 4.5 psi. All the difficulties mentioned in this chapter would be much greater if the suit pressure was actually 5.2 psi, as Frank Borman claimed (which I now believe to be true). To demonstrate this principle for a book trade show in Atlantic City during October '93, I made a "Space Glove". I welded together a steel vacuum chamber with a flange on one end. To this I attached a neoprene-coated, cotton-lined glove. One side of the chamber was plexiglass so the glove inside could be viewed. When there was no internal vacuum the fingers inserted into the glove could be easily clenched, and the hand freely rotated and flexed within the limitations usual for all gloves.

I exhausted the chamber to 10.2 psi which put 4.5 psi inside the glove. The vacuum pump used was capable of moving 3 cubic feet a minute and at first it was unable to decrease the pressure to 10.2 psi. The glove was leaking air around the 12 inch periphery of the flange, despite the fact that it was tightly clamped with a worm driven stainless-steel band clamp. That leak drained twice as much air as a man breathes. No, I didn't spend tens of millions for research and development, but I still wonder how much oxygen a crotch-to-shoulder zipper would leak.

Once my demonstration glove balloons around your inserted hand, it requires great effort to move either fingers or hand. It also becomes impossible to flex the wrist backwards, although the lever arm is only a normal 7 inches from fingertips to wrist. With that in mind, imagine the effort needed to bend an elbow against a lever arm of 24 inches, measured from fingertip to elbow! How could you move your shoulder and lower your arms or swing them forward against the 36 inches of lever arm found here? I seriously doubt if

Hulk Hogan could move his arms in a fabric space suit. Hey NASA, let's do a TV special to prove me wrong! You provide the suit and I'll provide the air pump, pressure gauge and a consumption meter to measure zipper leakage. For some strange reason the space coveralls had an external pocket on the shoulder of the right sleeve, which according to Mallan's book on spacesuits was for sun glasses. The coverall was only worn outside the ship. At that time you had on the fish bowl helmet. What could you do with sun glasses?²⁴

In December of '93, NASA claimed to have repaired the faulty mirror on the Hubble telescope. I had, and still have, a problem with this. Bright grammar school kids have been grinding telescope mirrors by hand for 200 years and seldom do they fail to get it right. One can use a simple tin can pierced with many tiny holes for gauging correct curvature during grinding. In May of 1990 a NASA shuttle carried and deployed into space an incredibly expensive toy that had already cost 1.5 billion plus. Months later NASA reluctantly informed us that the Hubble's mirror was not ground properly. That toy was backed by a full-time staff of 300 scientists and engineers and none had ever checked the mirror before launching.

NASA also mentioned that the Hubble had a wide-angle planetary-camera attachment. My question was why? The only planet too close to study without a wide angle lens is the Earth. (Which leads us to the happy thought that there never was a thing wrong with the Hubble and the CIA used it as a "Spy Eye"). This also makes no sense! Eric Chaisson, author of *The Hubble Wars* reports that during "Operation Desert Storm" the military had a fleet of at least six "Keyhole" space telescopes that were operational. Some were as big as the Hubble.²⁵ They tested all of these but forgot the Hubble. Sure they did!

As 1993 ended our TV screens were flooded by pictures of the shuttle crew working on the Hubble. I have been a mechanic all my life and you simply can't work with small fasteners with heavy gloves on. Yet, there they were in the full vacuum of space replacing the equipment. Not only were the suits not ballooned, but neither were the gloves. I also saw one short film clip of one of the astronauts with his hand limply bent down over the edge of a console. My space glove proves this can't happen. But the pictures exist!

Civilization was created by and continues because of our ability to construct buildings and machinery. Construction of any sort depends on being able to design members that are stiff enough to resist the predicted loads. Those predictions are all based on the fact that whenever we add anything to any structural member, whether paper thin or yards thick; whether flexible as a sheet of rubber or as stiff as concrete column, the addition will increase the resistance to bend (the stiffness).

The "Michelin Man" effect of any fabric space suit precludes any real work being done in open space. I believe, the Hubble was worked on with the space doors shut and the bay pressurized, or the tapes were synthesized underwater in the crystal clear pools, where

²⁴p. 228, *SUITING UP FOR SPACE*, Mallon, 1971, John Day Co.

²⁵p. 250, *THE HUBBLE WARS*, Chaisson, 1993, Harper Collins

the astronauts practice for space missions. Or they could have developed an armored, articulated suit that is covered with fabric as a disguise. It is not likely, because the hands can't be armored and then must end in hooks. This may have been no more than a slip of the tongue, but at 5:30 Friday morning, December 10, 1993 I was watching the release of the repaired Hubble on CNN. An announcer, named Bob, was describing it and said the words, "commanded the Shuttle doors to open".

Despite the fact that I have been assured by various NASA space experts that space gloves allow manual dexterity, and suits do not balloon, I shall reserve judgment until NASA publicly demonstrates that I'm wrong about the amount of zipper leakage and ballooning of Apollo suits and gloves. Let them take one of the suits (say the one in the Museum of Space in Washington, DC) and suit up an experienced spacewalking astronaut. Eric Chaisson also let the pressure cat out of NASA's space bags. He claims the suit pressure is 4.1 psi.²⁶ With this figure in mind, let's have NASA pump in 18.8 psi into the suits for the demo. This is equal to the differential in pressure between 4.1 psi in the suit when it is in space and the zero pressure found there.

If NASA complies, get your cameras ready folks. I predict that at any of the pressures described for the suits the astronaut choose for the demonstration will resemble the "Michelin Man" and wouldn't be able to move very well. I also predict that if the input air is metered as to volume, it will show that the suit leaks more cubic feet of air in 15 minutes than all the oxygen the PLSS could have held.

12.1 ADDENDUM

Something one of my readers said gave me the idea to test the body when placed in a 5.2 psi atmosphere. After all, this was the pressure the astronauts were supposed to live at when in space. I removed the space-glove from my vacuum chamber and inserted my right arm. Since the machine automatically takes in air through a small valve purposely left open to prevent continual starting and stopping of the vacuum pump, I figured that all I had to do was turn the switch off and the vacuum would quickly dissipate. I threw the switch and the vacuum began to suck my forearm deeper into the chamber.

This meant that more flesh was being jammed into the opening. As the gauge approached 5 inches of hg (2.43 psi), it felt as if a tourniquet was being applied. I couldn't see any change in the hand but it felt like it was swelling. There was also that feeling of pins and needles that came much quicker than any tourniquet could have caused.

As the needle approached the 10 inches of hg (4.6-psi) I became light-headed and decided to shut the machine down. The motor stopped and the dial began to drop. It

²⁶p. 41, Ibid.

probably took only 3 or 4 seconds until the pressure equalized, but it was a reminder that 3 or 4 seconds can be a lifetime when a giant octopus has grabbed you. A half hour later I was still a bit light-headed.

Let's examine this. A few seconds with my lower arm at less than 5 psi, and I became light-headed, but men with "The Right Stuff" can spend weeks and months with their whole bodies at that pressure. If I had a few bucks and a place to keep it, I would now build a body-sized chamber (about a yard or so of concrete and some 8 by 8 inch mesh) and I would get NASA apologists to volunteer to enter this chamber and I ain't kidding! Then I would be able to see for myself if it is possible to be comfortable at 5 psi.

The following statement was made by Mallon while writing about Gene Cernan's Gemini 9 space-walk. "A leak in one of the gaskets around his wrist would have killed him."²⁷ From this it follows that the gloves (and boots) are not pressurized. On page 105 we also find the statement that "Three and a half psi are necessary to keep a man alive in space." And that is for a man at rest and not under the stress and strain of maneuvering about. They are called space-walks, aren't they?

Then we find the best quote in the book extracted from the work of Dr. Vail the expert in high altitude work in that period. "At 70,000 feet the bare hands swell badly in 30 minutes."²⁸ The pressure at this altitude is about .8 psi which is better than the absolute zero of orbital distance and thus agrees with the swelling I immediately felt when I exposed my hands in the vacuum chamber of my glove machine. My body reacted faster because I have lost the resiliency of youth.

²⁷p. 153, SUITING UP FOR SPACE, Mallan, 1971, John Day Co.

²⁸p. 179, Ibid.

13 NO BUSINESS LIKE SHOWBIZ

Shortly after the rulers of the kingdom of NASA chose the "Seven Space Samurai" they must have known that man could not get to the Moon in their foreseeable future. As the years passed, and limited space probes penetrated near-space, NASA hid the fact that deep space, inhospitable at the best of times, becomes a sea of raging radiation when solar storms walk across the visible Sun's surface. The Sun, especially at the height of a solar sunspot cycle, is hardly ever without a medium flare which keeps us quarantined on our home planet.

Only actors working in a space opera could have survived such deadly items as: solar heat, space suits that leak, vacuum packed hands, and space radiation. Actors are not heroes and few heroes are made by performing in space opera serials. Out of the original seven astronauts, only Glenn, Grissom and Carpenter remain heroic. Of the second batch we should add Ed White and Jim McDivitt. Schirra and Stafford lost credibility after their fiberglass whip antenna failed to burn up during re-entry on Gemini 6-A .

Mike Gray writes about the heat of re-entry, "The planet's enormous gravity would pull you in at meteoric speed, and the heat generated just by running into the air molecules would turn ordinary steel to butter."¹ I guess that includes that fiberglass antennas. Or was it made of Buck Rogers "Impervium"?

From here on I shall use the derisive term "astro-nots" when speaking of the NASA actors who deceived us about going to the Moon. I am not sure about those involved in the Skylab fiasco, but I feel certain some lying was also done about it. I am also not sure how much of the low-orbit shuttle program is fanciful, yet I suspect much of which we are told about everything NASA does are lies.

I also believe Don Eisele and Walter Cunningham flew their mission on Apollo 7 and McDivitt and Rusty Schweickart flew on Apollo 9. The list below consists of the men who did what was claimed.

¹p. 29, ANGLE OF ATTACK, Gray, 1992, Norton

THE REAL ASTRONAUTS		
Mission	Astronauts	
Mercury 2	Gus Grissom	
Mercury 3	John Glenn	
Mercury 4	Scott Carpenter	
Gemini 4	Jim McDivitt	Ed White
Apollo 7	Don Eisele	Walter Cunningham
Apollo 9	Jim McDivitt	Rusty Schweickart

The men listed above did what they claimed. Now that we know who the real astronauts are, I specifically pronounce the names on the following list to be astro-nots who lied about their mission to one degree or another..

THE ASTRO-NOTS			
Serial	Actors		
Gemini 5	Gordon Cooper	Pete Conrad	
Gemini 6A	Walter Schirra	Tom stafford	
Apollo 8	Frank Borman	Jim Lovell	Bill Anders
Apollo 10	Tom Stafford	John Young	Gene Cernan
Apollo 11	Neil Armstrong	Mike Collins	Buzz Aldrin
Apollo 12	Pete Conrad	Dick Gordon	Al Bean
Apollo 13	Jim Lovell	Jack Swigart	Fred Haise
Apollo 14	Al Shepard	Stu Roosa	Ed Mitchell
Apollo 15	Dave Scott	Al Worden	Jim Irwin
Apollo 16	John Young	Charlie Duke	Ken Mattingly
Apollo 17	Gene Cernan	Ron Evans	Jack Smith

On every Apollo mission there was miracle after miracle! All miracles were adroitly handled by the men on this list who supplied the "Right Stuff to NASA. The cost to us American taxpayers was a mere 40 billion dollars. Gordon Cooper made the list because Gemini 5 got colder after the air-conditioner was powered down. Even Al Shepard, whose crown was safe as the first American in space, couldn't resist the siren call of more fame and glory. He just had to play golf on the Moon during the Apollo 14 mission.

We may never be able to prove which of the Gemini shots were real, but I have given the astronauts as much leeway as possible. Since the creation of the CIA, whenever pressure for the truth has been placed on a branch of our so-called democratic government, the powers that be place the records under lock and key for fifty or more years.

During the long years that those records are stored, roof leaks occur, windows blow out, fires start, and book-worms can run amuck digesting or shredding critical information. Electronic viruses get loose. Or history gets rewritten, as documents are altered to suit a

more preferred circumstance. I have no reason to expect any different treatment for the space program's archives. Wholesale fraud was committed, and nothing in the future will change, just as nothing happened after the Kennedy assassination, Irangate, the S & L scandals or the BCCI frauds. More recently we have Ruby Ridge, the Waco massacre, the OKC implosion and the WTC implosions. All of which were done with government help.

As far back as 1969 various authors on space have come to the realization that NASA was really in showbiz. For example: "The final accolade, proof that they would be showbiz legends as well as nerveless technicians, was an exclusive contract for Life magazine for their "personal stories.""²

By the time Michael Collins entered NASA in April 1962 (as part of the second batch of astronauts) NASA had already instituted a policy wherein each candidate had to attend, in essence, a charm school before acceptance. Collins explains, "At any rate, like would-be radio announcers, we read selected passages aloud, and these were critiqued at great length ..." ³ I may be just a bit cynical, but doesn't it sound more like preparation for a space opera than real exploration or adventure?

From the Mercury Program right through the Apollo hustle, we were led to believe that such men with the "Right Stuff couldn't and wouldn't ever tell a lie. Some were graduates of the top flight military academies including West Point and most everyone else was an officer and gentleman by Act of Congress. They would rather die than lie. This we were told. This we believed!

However, as one small counter illustration straight from the horse's mouth we have Buzz Aldrin writing about his matrimonial problems. He states how he manfully used his military academy honesty to resolve the situation caused by his extra-marital affairs. He writes, "And what did I do, I lied."⁴

He was also not above submitting his psychiatric bills to the Air Force, masked as if they were family counseling charges, so that no one would suspect he had many other problems.⁵ Maybe the rest of us would have done the same dern thing in such situations, but, we are not West Point graduates, nor officers and gentleman.

Or consider this anecdote. Aldrin was given the job of playing host to a gaggle of visiting Russian cosmonauts. He offered them an insider's, no strings attached, visit to the spaceport. Yes, he did too. So there! It's in his book. They declined the offer; yet when they were later asked by the press about visiting Cape Kennedy they lied and said they hadn't been invited.

²p. 139, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

³p. 23, CARRYING THE FIRE, Collins, 1974, Ballentine Books

⁴p. 270, RETURN TO EARTH, Aldrin, 1973, Random House

⁵p. 277, Ibid.

Yet, when writing of this incident, which may have been a cold war gambit, Aldrin was horror stricken. He proclaimed, "There are many things I might do under similar circumstances for my country, but I'm not about to lie."⁶ Say what??? Why bring this up? Only for the fact that right from the instant of the Apollo 11 launch there were many people who didn't believe men were on their way to the Moon.

Harry Hurt writes, "Although Project Apollo was one of the most extensively documented undertakings in human history, many of the earth's five billion inhabitants still refuse to believe that twelve astronauts really did set foot on the Moon. Exactly how many people cling to this preposterous heresy is unknown because there has never been a world wide opinion poll on the subject. But just as the Flat Earth society in London continue to dispute evidence that the world is round, untold numbers of serious and not-so-serious disbelievers continue to insist that man's first lunar landings were actually a series of government-sponsored Hollywood hoaxes."⁷

I wonder why he used the word "heresy". Is NASA's dogma now a part of a religion? If so, I haven't yet heard about it. Does doubting a NASA (read CIA) pronouncement become heresy? Is it punishable by excommunication or by roasting? Mr. Hurt seems hurt by this "preposterous heresy" on a worldwide basis. Outside the fact that NASA showed him the same pictures we have examined here, he did appear to have inside information, not available to the rest of us. Although he had the inside track, he apparently never once questioned NASA about a single word or picture. Because of his lack of critical analysis it became my chore to question the whole production. It's not a pleasant or easy task. It may even prove to be lethal.

It is well known that some actors, even some who have spent decades treading the boards, are susceptible to stage fright. They become unglued just before the show starts. Most professionals, however, have the ability to reach deep inside themselves and take up a fast hitch on the stomach butterflies, and when the curtain rises, hit the stage running. Many amateurs quit performing because of stage fright. Why is it that, without a single exception, the Apollo program astronauts are extremely adverse to public speaking and appearances? They were much more so than other groups of such prominent men.

Many years ago Buzz Aldrin was being interviewed at a banquet in Lancaster, California. He writes, "The first question Roy Neal asked was, "Now that almost two years have gone by, why not tell us how it really felt to be on the moon?"⁸

Buzz explains in his book, "If any one question was anathema to me, that was it. Roy, I suppose felt he had no choice. Yet it has always been almost impossible for me to answer with any sort of decent response. My throat went dry and I got dizzy."⁹

⁶p. 274, Ibid.

⁷p. 323, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

⁸p. 280, RETURN TO EARTH, Aldrin, 1973, Random House

⁹p. 280, Ibid.

He then adds that a little while later he bolted from the room, shaking uncontrollably, and then began to cry. He never tells us why. I have heard that he had a similar reaction at Edwards Air Force Base. This is definitely no longer a man with "The Right Stuff."

I am not a psychobabbler, but I've been on this planet long enough to recognize a man who has a terribly troubled conscience. I doubt if infidelity or any other such common problem caused it. To the contrary it strikes me as suffering from trying to live out the Big Lie.

The only possible question left is whether this ghost is known to him, or whether it lies deeply buried in his sub-conscience placed there by hypnosis and drugs. If the ghost was generated by governmental psycho-babblers using brainwashing techniques, he should be more pitied than censored. Maybe time will tell which circumstances apply.

Since the end of the 1940's most show business production companies have become color blind. But NASA, operating in its own insular world, couldn't have cared less. They were lily-white for years, until they finally found one black man who had "The Right Stuff." According to Collins, "The closest this country has come to having a black astronaut was the selection of Major Robert H. Lawrence, Jr., on 6-30-1967, as a member of the Air Force Manned Orbiting Laboratory astronaut group. A PH.D. in chemistry in addition to being a qualified test pilot, Lawrence was killed on 12-8-1967 in the crash of an F-104 at Edwards AFB."¹⁰

Here is yet another astronaut that died in an accident. One wonders: did he ask too many sensible questions, did he smell a hoax, or did he prove resistant to hypnosis? I wonder how many more astronauts died who were completely missed by popular writers of the era. It is extremely hazardous to the health to be associated with NASA.

Knowing that the Moon landings were not possible from the start, I believe that NASA poisoned the space apple right from the first Mercury mission by sucking the astronauts into telling the little lie about the dim and fuzzy stars. Otherwise why would Alan Shepard have lied about the stars? Why did Grissom follow suit? And almost every other astronaut lied right to this day?

I expect that NASA didn't come right out with it, up front, and tell them the whole space race was a sham. It is the first rule of spooks to enlighten only those who need to know, and to tell them only enough to be able to perform their mission. I am confident that the astronauts were told that the dim and fuzzy star thing involved American security, and that such disinformation would help us to beat the Russians to the Moon.

It was a tiny little white lie, which was needless too, since the Russians had already been in orbit. Once the lie was publicly uttered it trapped the astro-nots ever more deeply until they were enmeshed in a web of deceit, treachery, murder and lies. It's the same

¹⁰p. 176, CARRYING THE FIRE, Collins, 1974, Ballentine Books

web of lies that covert intelligence operators have spun ever since the first despot became insecure enough on his throne to feel the need for covert assassins.

The small successes of the Mercury program, weighed against the huge successes of the Russian bear, were pathetic. NASA's funding just kept climbing until it was stratospheric and eventually produced the Gemini Program. This, in turn, led inexorably to the Apollo grand ol'-space-opry when any real Moon landings were forgotten and show business became the primary business for NASA. It continues to this day.

Then each day after that, carefully screened and select personnel — including those astro-nots who actually flew — were gently led down the primrose path that culminated with those alleged, all the way to the moon shots, and the six alleged landings.

As I have previously reported, the first three Apollo missions were figments of NASA's imagination. Of those that launched, I believe that only Apollo 7 and Apollo 9 were real because they never had to pretend to leave Earth's orbit. These were the missions that got us back in the space game after the fire. In addition, if the big bucks were to continue flowing, NASA wouldn't have chanced faking this one!

(The remaining Apollo flights may have orbited the Earth for a while, but probably used the emergency escape rocket to bail out before orbit was even established. The astro-nots would have dropped into the south Atlantic and been rescued by CIA ships. After a nice vacation on a sunny beach, they were flown out to the recovery zone and dropped, capsule and all, out of one of the CIA's huge cargo planes. The CIA owns the largest commercial air fleet in the world, including huge cargo planes which operate year after year. I originally wrote "The CIA has tremendous outgo — except for our taxes — has no other known income (except that provided by gun running, the importation of aliens and drug deliveries). What customs or immigration inspector ever checked out a single one of their planes or boats? By definition the CIA is hardly a clean operation." Since NASA continues to operate after their budget was chopped, we know now that all the bureaucracies must receive some direct funding from the FED. I have also found out that our income taxes disappear into the International Monetary Fund.)

Collins claims that all his doubts were expressed by NASA's safety chief three days before the Apollo 8 flight. "While the flight posed fewer unknowns than had Columbus's voyage, Jerry said, the mission would "involve risks of great magnitude and probable risks that had not been foreseen. Apollo 8 has 5,600,000 parts and one and one half million systems, subsystems, and assemblies. Even if all function with 99.9 percent reliability, we could expect fifty-six hundred defects ..." ¹¹

Mike Gray in *Angle of Attack* writes, "To reach the moon and return, some three million pieces of manmade artifacts had to interact with an almost mystic cohesion heretofore seen

¹¹p. 307, Ibid.

only in Nature herself. The fact that the machine worked at all was a miracle.¹² "The fact that it worked with such stupefying precision was evolutionary."¹³

Before Collins went out to risk flesh and bone on the mythological Apollo 11 he said, "I think we will escape with our skins, or at least I will escape with mine, but I wouldn't give better than even odds on a successful landing and return. There are just too many things that can go wrong."¹⁴

After this reflection where he gives even odds, NASA tosses the coin and comes up heads seven times in a row! The odds against doing that with a coin are 128 to 1. The odds against that, considering the capsules and rocket enginess, are so incredible that God must have indeed been the co-pilot on these missions.

However, to all of us who were glued to the TV, myself included, those ". . . million souls who watched dumbstruck as the great machine ascended, there could not have been the slightest doubt that this thing was leaving the planet."¹⁵

Against odds like this NASA claims to have launched nine birds all the way to the Moon and back with no loss of ships or life. Sure! And yes, Virginia, there is a Santa Claus, Easter Bunny and Tooth Fairy, the check's in the mail, and no, the computer is never down!

The Apollo 8 & 10 flights acted like the prelims on a fight card by attracting attention. They helped set the mood until the real soap opera could start. Lift off was the only real thing about each of the later missions. The astro-nots had to be aboard when the rocket was launched — in case it was destroyed during that launch, as was the Challenger Shuttle. Three live astro-nots couldn't be miraculously explained away. We were gullible, but this would have been too much to ask even us to believe.

If they were alive, when all should have been dead, even CIA heavy hitters might balk at triple whacking American heroes. Because people are criminals doesn't make them any less patriotic. Jimmy Carter's Pentagon learned this fact the hard way on that misadventure to Iran when they tried to free the American hostages. Shortly after our assault copters landed in the desert the troops caught a few smugglers, but the commander in charge of that mission foolishly let them go. He thought because they were criminals they would not report the Americans. But they went straight to the police and ratted out the mission.

Look at my own case. If someone had told me in the late fifties after my war with the army, that I would risk ridicule or worse to warn my country of disaster looming

¹²That statement was made years ago. Since then, some NASA video footage (with sound) has surfaced (made in low Earth orbit) and dated July 17, 1969, when they were supposed to be halfway to the Moon, shows the Apollo 11 clowns faking pictures of a receding Earth by blacking out the ship and moving the camera further from the port hole thus "proving" they were actually going to the Moon!

¹³p. 7, *ANGLE OF ATTACK*, Gray, 1992, Norton

¹⁴p. 364, *CARRYING THE FIRE*, Collins, 1974, Ballentine Books

¹⁵p. 275, *ANGLE OF ATTACK*, Gray, 1992, Norton

ahead, I would have laughed at them. I have discovered that patriotism does not involve supporting the current administration. True patriotism doesn't depend upon any political leader's opinions in a matter. It deals with what is good for the people as a whole. The trillion dollar Mars hoax will drown all of us.

Now that we have reviewed the actors, let's proceed to the space opera itself. During the Gemini Program NASA's focus slowly changed from solving real technical problems involved in forcing a new technology into existence, to the invention of cliff hangers for each new episode. Either the problems were simply too large to be solved, or they got too involved with Cold War dis-information.

And real problems did exist — in such copious numbers that nothing had to be invented. In December 1966 a report made by Joe Shea noted, "At least 20,000 failures of all kinds had been logged, he said, more than two hundred of them in the environmental control system."¹⁶

In *Journey To Tranquility* the authors point out, "In short, the two main engines of the lunar module had to be infallible. Yet in January 1968 the ascent engine in particular was proving to be only too prone to error."¹⁷

People who go adventuring in real life, unless they are suicidal, try to whittle down the odds against them by proper planning and provisioning. In a showbiz production, the excitement is frequently heightened by the dumbness of hero or heroine. For instance, our hero is shoved around by goons. Smack! Smack! Smack! They deliver the message from Mr. Big. Our hero lives; wakes up in a hospital to find either that his wife was raped and little dog killed, or vice versa.

Does he take out the top gangster that sicced the goons on him? Not quite! Throughout the rest of the production, he kills the underling goons five at a time, but never once does he take out Mr. Big. Only in the last scene, does our hero whup Mr. Big's ass and sends him off to jail with a black eye, instead of the grave where any normal man would have put him. Everybody in the audience over the age of twelve knows that Mr. Big will be out of jail on bond in a matter of hours. I guess that's show biz.

In the NASA serials Mr. Big was space and if NASA failed to maintain sufficient public interest, Congress would cut a good portion of all those beautiful bucks. To maintain interest they needed to create situations that promised danger and harrowing escapes. Never mind the fact that you will soon learn that not one manned mission dared go beyond the safety of our Van Allen radiation shield.

For example, on the Apollo 11 mission the LEM's computer gave out a "busy signal" in its final descent to the lunar surface. Then they had the added excitement of missing their

¹⁶p. 185, *JOURNEY TO TRANQUILITY*, Young, Silcock & Dunn, 1969, Doubleday

¹⁷p. 223, *Ibid.*

planned landing area so much that NASA was in effect screaming, "Car 54 where are you!" Or close enough to it.

Then there was the great evacuation flap when Armstrong and Aldrin took four hours to evacuate once they were on the Moon. Practicing quick evacuations here on Earth take some time, but 4 hours is ridiculous. They complained that too much gas got in the way. But finally, because they had "The Right Stuff" they were able to get rid of the gas and go about their real job, bopping around the Moon mouthing platitudes. I speak here of the air in the LEM, naturally.

Harry Hurt tells us, "Armstrong and Aldrin expected their EVA (walk on the Moon) preparations to take about two hours, but they ended up taking twice that long because the exhaust gases from the backpacks compounded the difficulty of depressurizing the cabin of the lunar module."¹⁸ But please remember what you read about the suit's air conditioning not being able to work once they entered the LEM.

Well, Buzz, wasn't the Command Capsule a mansion in comparison to the LEM's tiny cabin? If it took you 4 hours to vent the LEM in space because of your exhalations, how could you ever believe NASA when they told you (before the Pad 34 cremation) that an oxygen fire could be quickly vented to space?

Not to be scatological, but that scenario is so much bovine fecal matter. I used to scuba dive and know that a man breathes a bit less than 72 cubic feet of air an hour in shallow water. Four-fifths of that is nitrogen which wasn't carried to the Moon. That leaves us with about 15 cubic feet of exhalation per hour per astro-not. In two hours that would be a grand total of 60-cubic feet of free air. This is the volume of a box that is 4 feet on each edge, or a big balloon a little over 3 feet in diameter. Not very much gas to worry about is it?

But they had to contend with even less than that because they had lithium hydroxide canisters which removed the carbon dioxide from the used oxygen so that it could be rebreathed. The space suits must have released little or nothing in the waste gas department, else we would have seen the water vapor in the exhausted gas periodically explode out from the suit into the zero pressure of space. Had that happened in real space, that water would have flashed into ice crystals as they were ejected, making a splendid showy snow.

Collins tells about such a show. "After breakfast I hook a full urine bag to the overboard dump and am rewarded with the usual snowstorm of escaping white particles. The constellation "Urion," as Wally Schirra has dubbed it, is formed by the instantaneous freezing of the urine stream as it reaches the vacuum of space and breaks into thousands of individual miniature spheres."¹⁹

¹⁸p. 173, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

¹⁹p. 246, CARRYING THE FIRE, Collins, 1974, Ballentine Books

And even if they weren't scrubbing the gases on the LEM, the amount of gas we are talking about here would have passed through a pin hole in two hours. This is another whopper that Burger King had no part in creating! Here on Earth when we blow up balloons, they have a quantity of air at about a half a pound positive pressure. What happens when we let go of the narrow neck? PSSSSSSSSS and all the air is gone. In space and on the Moon they use oxygen at 5.2 pounds positive pressure and they are trying to tell us that PSSSSSSSSS no longer works. Look how much air a leaf blower moves and its working pressure is less than a half pound over atmospheric.

We read about how the Apollo 12's Lander almost dropped into the crater that held the Surveyor III. What was the only thing that prevented disaster? "The Right Stuff! The LEM was maneuvered safely to the far rim of the crater and teeter-tottered almost toppling over the rim. But our heroes' luck held and it settled down safely. The TV audience watching that exciting mission was small. The TV coverage was still superlatively lousy, so many people opted for the Ed Sullivan Show instead.

Before we proceed to the Apollo 13 episode of the space opera, we shall break in order to introduce the subject of the thermal roll. At the beginning of the Mercury program NASA found that the heat shields would crack if left too long in the cold of space. So Joe Shea, NASA's chief administrator, asked a pregnant question. "Shea asked how long it took for the heat shield to cool down to the point where problems began. The answer was about thirteen hours. So why did the spacecraft have to stay in the same attitude for that long? Why couldn't it rotate, so the heat shield would remain nice and warm all the time? And that was the origin of what came to be known as the "barbecue" mode, or passive thermal control (P.T.C.), in which the space craft rotated once an hour all the way out to the Moon and back."²⁰ My question is why didn't they point the shield directly at the Sun instead?

Back in 1969 NASA's world famous space opera could easily have been called, "How The Ship Turns!" or the working title, "Rotate on This!" But the NASA script writers decided to spark up our jaded appetites with a close call. Accordingly, Apollo 13 had an oxygen explosion in the service module while it was half way to the Moon. The command capsule was knocked out of business and the power generation system was lost. Quick thinking by the men with "The Right Stuff and Houston Control got the fully charged batteries of the LEM to save the day.

However, without the heat supplied by things electrical the ship got a little bit cold. Not as cold as Maine fisherman live through most of the year, not as cold the homeless get in Chicago in the winter, but cold.

As Hurt tells us: "the astronauts' greatest physical discomfort was sheer insomnia resulting from their inability to get to sleep. Their insomnia resulted in large part from the

²⁰p. 176, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

loss of their primary electrical system. Although they spent their waking hours in the lunar module, they spent their rest periods in the darkness of the command module. With the power shut down, the temperature inside the mothership dropped to thirty-eight degrees. The astronauts tried to put the mothership into a thermal roll, but the maneuver, which turned out to be more of a wobble than a roll, failed to warm up the interior of the command module more than a few degrees. Appropriately, they dubbed the mothership "the refrigerator."²¹

Once they were down on the ground, NASA magically discovered the cause of this little drama. They said a bad order to a technician months before had cooked the safety switch on that oxygen tank.²² They must have the power of second sight to be able to pin the blame with such assurance since the service module was left in space. Either that, or this is the arrogance of accomplished con men.

The next episode in the serial is even better! As the Apollo 14 LEM was descending to the Moon the abort light on the control panel lit up.²³ Harry Hurt explains what happened after the mission: "Only after their return to Earth did they learn that the bug illuminating the ABORT light was a loose solder ball in the wiring."²⁴

How did NASA discover that drop of loose solder after the LEM was dropped back onto the Moon? I'm really beginning to believe that the CIA resurrected Merlin the Magician and gave him a job with NASA as the assistant to the Wizard of Oz. Something else equally amazing happened on Apollo 14, but it's too good to tell now so I'll save it for the end of this section.

By the time it was Apollo 15's turn at bat, NASA's Nielson ratings were way down. The writers scripted another close call. This one had to be dramatic. This time the astronauts almost drowned in space! Hurt explains, "On Day Three of the mission, when the astronauts were about two-thirds of the way to the Moon, the command module Endeavor sprang a water leak that threatened to flood the entire cabin. Scott, Irwin and Worden realized that a plumbing emergency in zero G could turn into a terrible nightmare, for there was no gravity to help them bail out the ship."²⁵

And then, in the nick of time they fixed the leak. I wonder how much water you can carry in a service module? Is it really enough to flood the command module? Even so, it could all be ejected in a whoosh! All that would be necessary would be to suit up and open the venting valves. Or better yet, take a tube connected to that valve and literally vacuum up the water in little slurps and directly eject it into space.

²¹p. 212, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

²²p. 404, APOLLO The Race to the Moon, Murray & Cox, 1989, Simon & Schuster

²³p. 223, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

²⁴p. 225, Ibid.

²⁵p. 235, Ibid.

Since the same old hum-drum landing spots were getting boring ... they decided to land in the mountains this time. Hurt tells us about it: "Early on the morning of July 31, 1971, the day of the landing attempt, Scott and Irwin had to confront the special dangers posed by the Hadley-Apennine region, whose rugged topography resembled the southern Rockies of the U.S."²⁶ This is truly unbelievable. If they wanted rocks from that particular mountain why didn't they wait until Apollo 17, when they would have a full-fledged geologist aboard?

Apollo 15 was also the first landing with the Rover strapped on the LEM. Imbalance in loading is the bane of airplanes and ships who use loading specialists to balance the loads. No matter how they loaded the Rover on the LEM, it had to create an out of balance condition as soon as the LEM entered any gravity field. It simply couldn't be centered. How do you land an unwieldy single jet vertical landing machine that's unbalanced? And why would you want to drive an experimental vehicle in a rugged mountain range?

Remember how before the Apollo 11 landing they were peeling Mylar from the LEM to get the weight down? But now they are carrying Rovers and supplies for extended stays, using the same machine that almost ran out of fuel on the much lighter Apollo 11's descent. How could this be? Apparently they suddenly had no more worries about either heat, oxygen, fuel or radiation. Did we miss something here? Of course, this Lander repeated a previous thriller. It landed on the edge of a crater and rolled around a bit before settling in.²⁷

On Apollo 16, the next segment, a new trouble surfaced. The gremlins had finally managed to slip past the Army, Navy, Air Force, the Marines and — NASA. They got on board this bird. Harry Hurt writes that Mattingly reported, "I don't know what's wrong with this thing," "It feels like it's going to shake the spacecraft apart."²⁸ A few more heart palpitations, sure. But they landed OK.

Now, as promised, we bring you now the strangest part of this chapter. The Moon has 1/6 of Earth's gravity and absolutely zero air resistance. Even a duffer on the Moon should smack a golf ball about a country mile. A ballooned space suit might make a smooth swing a little bit harder, but even if this difficulty did not exist one could get by using one hand. Which allegedly is what Alan Shepard claimed he did. He rigged a club out of a metal flange and the handle of a sample retriever. When ready he dropped a smuggled ball to the ground and announced his intention to Houston and the watching world. The TV camera focused on him and he said, "'I'm going to try a little sand-trap shot here,'". Then, as the world watched, he jerked his club back and swung at the ball and missed. Then he tried again.

"The ball popped almost straight up in a cloudy divot of moon dust, and seemed to hang in mid-flight as if suspended on a string. Then it tailed off to

²⁶p. 235, Ibid.

²⁷p. 236, Ibid.

²⁸p. 245, Ibid.

the right, and fell back to the lunar surface less than 100 yards away. 'That looks like a slice to me, Al,' teased CAPCOM Haise.'"²⁹

Simple enough. A man sees a chance to make golf history with the whole world watching, even though he slices the ball. To dissect this absurdity I need digress again. When I was a kid I was able to see patrolling dragonflies snatch mosquitoes from the air. They never miss. When they dip, another bug is gobbled. I like dragon flies because I hate mosquitoes. I mention this only to show how good my eyes were. Rest assured that in playing baseball I knew a curve ball when I saw one.

So, when I was in high school taking physics from the school's (least athletic) teacher, he told us that a curve ball was a no-such. I took most of his teaching like a man. I didn't snivel when he said Einstein informed us that star travel could never be; I didn't even make much of a fuss when he lied about the no-suchness of giant squid. But this time he had gone too far. I saw balls curve.

Yet, nothing a kid could say would shake him from the vows he took when they handed him his degree and he swore to defend modern science; to never believe in the unexplainable which is defined as anything not printed as acceptable in the current physics theories. Years later, of course, physics bent just a bit and they finally admitted that a ball could curve just as baseball players knew all along. They went on to add that it curved because of Bernoulli's Principal.

A rotating ball induces unequal air flow over the ball's surface. This creates unequal pressures on opposite sides of the ball, which is then push-pulled from its straight inertial path. The magic word is air. Without air there would be no Bernoulli's Principal. Without air that ball, whether rotating or not, could only obey Newton's first law which simply and clearly states, a body in motion tends to remain in motion.

No one has really worked out all the physics of curving baseballs, yet, nor golf's hooks and slices. Golf balls are dimpled, for example, to make a rough surface — which makes for more turbulence, which supposedly counteracts Bernoulli's Principal. Nonetheless, you can't throw a curve, or slice a golf ball, without an atmosphere. In early June 1994, Shepard was on a Washington DC radio station and he now claims that he "shanked" that ball because a ball can't curve in a vacuum. Since the camera was stationary a shank would have exited the camera's field of view almost immediately. A shank is when the ball skids sideways off the face of the club.

Al, everybody saw it slice on that original tape. If there was air on the Moon why didn't you tell us? If there isn't and that ball was shanked as you claim, then we all need glasses with very thick lenses. Or is it that the tape, your report, and the mission were all simulated?

²⁹p. 230, Ibid.

14 THE MANCHURIAN CANDIDATE

In my second year of high school I read extensively about the world's most modern religion. I used both the school and the public library, and after extensive reading purposely chose not to join. I speak here of the religion of psychiatry and its three major sects led by the respective prophets named Freud, Adler and Jung. I eventually came to refer to these men as Fraud, Addled and Junk.

It turned out, that in the dogma of psychiatry, my love of the outdoors, camping, fishing and hunting and shooting, were all pronounced as symptoms of repressed homosexuality by big city boys. My gun was an extension of my penis. Every shot I fired was a sublimation of my sexual desire for men or boys, and for all I know maybe even male dogs.

Naturally, if you searched your soul and failed to find any such feelings, then you were diagnosed as repressing and sublimating. Since I've always cared more about what I thought than what anyone else thought about me, I could easily have swished out of the closet had I been in one.

While the old established religions bore down on the ever popular sins of sex, greed, gluttony, coveting and murder, this new one expounded a new sin: the sin of being mentally sick to one degree or another. To this new religion piety got you nowhere. Everyone was a sinner! I had a little problem with this belief because I felt I was being tarred with a very broad brush wielded by big city boys who thought a trout was a used condom floating in the Hudson River and believed a sucker was someone you sold the Brooklyn Bridge to.

So I rejected psychiatry, even though I learned a little of the psychiatric jargon. According to many practitioners, everyone is swept by either the dust brush of neuroses, or by the broom of madness; their basic tenet, of course, is that everyone needs their 50 minute hour ministrations forever. After all, wouldn't we all want desperate customers willing to pay us good money for a couple of hours a week?

A few years ago I heard that magic and most descriptive term "psycho-babbler" which I have enjoyed using ever since. Just because I don't believe in the psycho-babbler's particular dogma doesn't mean that I am unaware of mental illness, drug altered states and hypnosis. Like most of us, I have become emotionally crazy at times. But, I have also had a few periods, admittedly short, when I was completely sane. I feel I probably know more about both states than the average bear.

I know enough about hypnotism to be absolutely sure that when some expert hypnosis assures you that he can't induce you to do anything against your morals, nor make you do anything you wouldn't ordinarily do, it's time to run like hell. That's simply not true!

I firmly believe that each of us is capable of doing anything imaginable, given the proper encouragement and setting. Hypnosis is the technique by which a subject's perception and thinking processes are altered by suggestion alone. The stylish fads that periodically ripple through society are examples of the inherent power of suggestion.

In our society one of the biggest single no-nos is killing another human being. For those who like to think they could never kill I have news for you. We are all installed with belief by the authority figures who formed our EBS (Emotional Belief System) while we were still young and our logic centers were not yet mature. It is not all that hard to start teaching young soldiers how to kill. What governments have always found difficult is to get them to stop after the war is over.

Fortunately, in most people the brainwashing techniques (pioneered by the Chinese using the North Koreans and perfected by the North Vietnamese) wear thin after awhile. I wonder how long it would take a perfect brainwashing job to wear thin on one of the 'Manchurian Candidates', especially if it went against a person's moral code. Even beneficial hypnotic suggestions such as stopping smoking, or other self-admitted bad habits, wear off in time. Imagine how much deeper suggestions, like those that go against your moral grain, must be implanted. How much faster do they erode away? For there to be a life-time of deceit, I believe the subject must finally accept the lie!

Whether brainwashing was used or not, these astro-nots were inducted into NASA's web of lies one at a time and one lie at a time, very carefully. Some of them were West Pointers who supposedly never lied before. Yet, here we have a developing situation which would turn all of them into a pack of the greatest liars the world has ever known.

The only logical reason I can find for Grissom's behavior shortly before the fire is that he had been brain-washed (but it was wearing thin). He had to know that NASA lied, for whatever reasons, about the brilliance of stars and planets in space. This always raises the question that if Grissom was aware that the program was a hoax, why raise a fuss? It's one thing to get mad at shoddy work when your life depends upon it, but it's totally dumb, if not insane, to get mad if you are not in any danger, and are in on the scam.

Grissom was neither stupid nor mad. The dilemma is that he couldn't have known. Yet, he must have known! He had flown twice before. He was the second of our men to probe space during the Mercury Program, and he also flew on the first Gemini mission. After the first flight he came back and told the party-line lie about the dim and fuzzy stars. And, by his silence after the Gemini mission, protected that lie. He didn't know, yet he must have known. This problem defies resolution, unless he had been hypnotically altered and it was wearing off.

Concerning his two flights, both of these missions had to be legitimate because I have found nothing to suggest otherwise. But at the time of the fire he was possibly resisting NASA's not too subtle hints about how true patriots would lie to their fellow citizens for their country.

The fire on Pad 34 was not utter, compound idiocy. It was murder! If NASA had killed other astronauts in a series of strange 'accidents', then that raises suspicion about the shuttle that blew up a few years later. Challenger was the first one to fly with a civilian on board. Did she, a knowledgeable teacher, start to ask too many questions?

If you suspect our astro-nots have been doctored by the psycho-babblers then they crumble from basic heroes into pathetic figures. If you believe they were consciously lying, and lied their way to fame, then they are despicable.

I firmly believe that they are liars, since too many years have passed and not one has come forth to tell the truth. Normally one would expect some of them would have relieved their mental stress by confession; unless, of course, their hypnosis is being continually upgraded and reinforced. Is this far-fetched? Wives, friends and relatives would always be asking questions about the Apollo missions which would tend to weaken the altered state.

It is not as if they committed some heinous crime like murder and no one else knows, allowing them to literally forget the incident. They allegedly went to the Moon and everybody they know must talk about it now and then.

So the question still arises. Were they just bad actors who saw a shot at fame and glory and took it? Or were they Manchurian candidates who, to this day, are still subjected to mind-control by the government? Either way, the choice was bad for everyone concerned. Much better had NASA given the Moon shot a hell of a try and failed, rather than "Mooning America" by deception.

15 SUNSTROKE

This section has been in constant revision from the first day I began to write it during the beginning of December 1992. What was needed was a combination solar physicist, nuclear engineer and medical doctor who specialized in radiation poisoning. Unfortunately, I couldn't find such a person so we are stuck with each other.

I requested the solar data from NOAA (National Oceanic & Atmospheric Administration) for the years of the Apollo missions to the Moon because I hoped to find just one big X-ray and proton exuding flare that took place during any one of the missions. We would have heard about cooked astro-nots, right?

I felt I didn't dare reveal why I wanted this information, so being the clever devil I am, I wrote to the Geophysical Data Center in Boulder, Colorado with an invented story about correlating solar flares with some concise weather records my grandfather had left me. Heh! Heh!

The NOAA people were polite and prompt. Mr. McKinnon sent me some pamphlets and disks with compressed data which my computer couldn't read. I had a friend explode them to find the data columns were over 83 columns wide. However, these columns had no headers. Have you ever seen data columns without headings? Neither have I.

I copied the data for those time periods onto new files to play with. I tried for two long days to locate the columns containing the X-ray data and failed. This column contains only the letters C, M, and X and I should have found it even without the headers. I finally called Mr. McKinnon and bluntly asked for the column numbers for the X-ray and proton data. I was glibly sidetracked and then told that I would receive more information.

While waiting for NOAA's promised package I tried again and again to determine the X-ray data. I finally came to the conclusion that NOAA was a more clever devil than I and had cooked the files. That's difficult to accept because this was scientific data that had little to do with the space shots. It's the sort of data that regularly goes to universities and scientists all over the world, plus to companies that operate air lines, power plants, radio and TV stations and telephone systems.

This premise seemed too far out, so I had to conclude that if the X-ray data was deleted there had to be two sets of data, one that would be sent to scientists and organizations on a preferred list, and the other, sent to casual strangers, like me.

Then I wondered if they eliminated this pertinent data from only those days the astronauts were supposed to be in space. We checked the rest of the disks to find that there was no X-ray data. While I tried to get the smoking gun (space radiation data) I proceeded to assemble what I had.

The chart below is a monthly list of all solar flares for a period of 25 years from solar cycles 19, 20, and 21.

MONTHLY COUNTS OF GROUPED SOLAR FLARES

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	508	584	4803
1989	689	539	658	485	686	971	473	684	699	535	640	507	8132
1990	536	415	664	439	565	433	447	703	436	569	619	672	6498
1991	659	491	625	570	458	573	582	581	425	565	396	544	6469
Grand Total													134793

A fast scan of the chart shows that the ideal year for venturing into space and gambling on the Moon was 1976 which had only 614 solar flares. However, even during such low emissivity times there is a danger. Immense proton and X-ray emitting flares can, and do, erupt even during the low portion of a solar cycle, as shown by the tremendous series of flares during August 1972.

The accepted theoretical apex of Solar Cycle 20 was from December 1968 through December 1969. During this period Apollo missions 8, 9, 10, 11 & 12, allegedly left the protection provided by the Van Allen Belt (shield) and entered lunar space.

Further examination of the monthly chart showed that the individual solar flares are basically random occurrences, and are superimposed on the 11 year solar cycle. Nonetheless, there can be a high flare count for short periods, even during the low in the cycle. There can be a low count for short periods during the peak, but the point to remember is that extremely powerful flares can randomly occur at any portion of the cycle.

During the era of the Apollo missions (1969 to 1972) , there were 27,019 flares or 19 storms a day so I decided to run my own imaginary contest to see which Apollo team of astro-nots would win the booby prize for being zapped by the highest number of flares while in space. Traveling at 26,000 mph, a mission to the moon spends only minutes under the Van Allen belts. Then the astro-nots spend about an hour in the belts' regions where the higher radiation is trapped (see The More On Space Radiation addendum). Although the higher radiation here serious, it is miniscule compared to what is released by one big solar flare.

By dividing the number of flares in a month by the number of days in that month I found the average number of flares per day. Then by multiplying that average by the number of days in a mission I found the total average flares per mission.

The chart below lists each Moon mission, and the average number of flares each day of that period. It also lists the total number of flares each team of astro-nots were never exposed to while not flying to the Moon. Just like you can't get a tan in a subway, you can't get dosed if you aren't in space.

ASTRO-NOTS RADIATION EXPOSURE

Mission	Dates	Days in space	Total flares in month	Average per day	Trip Total flares
Apollo 8	12/21 to 12/27 1968	6	640	20.64	123.8
Apollo 10	05/18 to 05/26 1969	8	839	27.06	216.5
Apollo 11	07/16 to 07/24 1969	8	489	15.77	126.2
Apollo 12	11/14 to 11/24 1969	10	566	18.86	188.6
Apollo 13	04/11 to 04/17 1970	6	688	22.93	137.6
Apollo 14	01/31 to 02/09 1971	10	551	18.69	186.9
Apollo 15	07/26 to 08/07 1971	12	693	22.35	268.2
Apollo 16	04/16 to 04/27 1972	13	361	12.03	156.4
Apollo 17	12/07 to 12/19 1972	12	210	6.77	81.2
	Total	85			1485.4

Note: on dates that extend through two months the numbers for both months were averaged.

My personal "Most Flares Avoided" award goes to the Apollo 15 team composed of astro-nots Dave Scott, Al Worden and Jim Irwin. They won hands down. I'm tempted to

become somewhat sarcastic about this mission. However, Jim Irwin paid a severe price in mental stability for his "fame and glory" before he died, so I will hold back on the sardonic comments here. It seems Irwin was in touch with Bill Kaysing just before he died. I like to think that maybe he was about to 'fess' up when he had his fatal heart attack on August 8, 1991. Heart attacks, especially for middle-aged men, top the list whenever any covert agency wishes to silence someone who has become an 'enemy' of the state. The reasons may be specious or even false, but that doesn't seem to deter them. Nor does it seem to bother citizens who are "law and order" monomaniacs. Their numbers are now legion. Witness the popularity of TV shows that glorify flagrant violations of our Constitution by the police, etc.

As far as the all the other Apollo astro-nots are concerned, I'm sure I received more radiation from my CRT computer screen in writing this book than they ever received from the 85 days they weren't in lunar space. In that same ostensible time period if you use the grand total of 134,793 flares from the first chart, then 1485 flares burned their way across the Sun. They never received a dose of radiation. Amazing!

In the meantime, the special information promised by NOAA arrived in the form of a book and a user's guide to the data. The guide provides the format for data after 1975 so it was almost useless for my purposes. It did however help to give me a small education in solar flares. The book, NOAA TECHNICAL MEMORANDUM ERL-22, was written by J. A. McKinnon, a NOAA expert on solar flares. The book's subtitle is August 1972 Solar Activity and Related Geophysical Effects , and specifically details the effects of an immense series of solar flares that occurred from 8/2/72 through 8/11/72. These flares, the most spectacular series of solar flares in the twentieth century, originated without warning from a region of the Sun known as 331.

McKinnon begins his book with this statement, "In early August 1972, a series of solar flares from one region on the sun's disk made national news. The geophysical effects that followed reaffirmed to laymen and scientists alike that the sun can act as a formidable source of radiation."¹ Wait a minute! Didn't the Russians try to tell NASA that in 1963?

Mike Collins also told us that the flares were predictable in July of 1969. During the years of the Apollo missions those long range (27-day) forecasts that NOAA provides, mostly to communication and power companies, were about as accurate as a 27-day weather forecast by NOAA. On July 19, 1972 the long range forecast read, "27 day forecast for 20 July to 16 August 1972: No significant increase in solar activity is expected." On August 2, 1972 it read, "Forecast for 03-09 August 1972: Solar activity is expected to remain at a low to moderate level."²

McKinnon, the government expert, writing some years after the Apollo 11, has this to say about NOAA' predictions: "The activity from region 331 was not covered in any long-

¹p. 1, NOAA TECHNICAL MEMORANDUM ERL-22, McKinnon, Dec, 1972, Dep. of Commerce

²p. 28, Ibid.

range forecasts."³ The words 'not covered' mean simply in plain English that the long range forecasts completely failed to predict them.

The short-term forecast at 2200 hours on August 1, 1972 claimed the average probability for the severe class X flare as 7 %. For a proton event it was 9 %.⁴ Yet less than 4 hours and 50 minutes later solar Region 331 produced its initial major flare. It was the first in a series that culminated in a 5 day period producing the greatest solar activity recorded in this century. And that, despite the fact that the Sun was near the minimum of its cycle. What now can we make of Collins' statement that NASA had a way to protect the Apollo astro-nots from solar flares when they were in space years before. Even NOAA's next day forecasts made during the actual event were understated.

Speaking of solar flares in general, McKinnon says, "A probability of 10-20% should be considered a low probability for class M events..."⁵ In plain English he is saying that even at the bottom of the cycle, one flare in five is large enough to emit M (medium) strength X-rays.

McKinnon continues, "Probabilities of the order of 1% are considered low with respect to class X flares."⁶ X rated flares are the strongest. Proton events are also extremely hazardous to anyone outside the Earth's Van Allen Belt. It seems that protons and X-rays travel well under the speed of light. As far as warning goes, the X-rays begin to bombard Earth within an hour of generation. Some of the more energetic protons can make the trip in 38 minutes.⁷ This means an even shorter warning time.

Once in space, even if NOAA could issue an early warning about major solar activity, what could the astro-nots do about it? Get into their fabric suits and hide behind the tissue-paper-thin walls of the command module and LEM? According to John Wilford the SWIP program (Super Weight Improvement Program) whittled the outer skin of the LEM until it was, "about the thickness of heavy-duty aluminum foil..."⁸

Despite all the weather stations and their modern equipment, radar, satellite observations, etc. any realistic meteorologist will admit that weather forecasting is still more an art than a science. Frequently it seems mostly inspired, intuitive guesswork when it turns out to be right. It seems the Old Farmer's Almanac, prepared a year in advance, is just as accurate as the 29-day forecast. Would you bet your life on tomorrow's weather forecast?

Solar flare prediction, of course, is not even as accurate as a weather forecast. By actual measurement, heavy-duty aluminum foil is a little over one thousandth of an inch. Would you want to bet your life on next weeks solar forecast while hiding behind such walls?

³p. 28, Ibid.

⁴p. 51, Ibid.

⁵p. 29, Ibid.

⁶p. 29, Ibid.

⁷p. 29, Ibid.

⁸p. 155, WE REACH THE MOON, Wilford, 1969, The New York Times

The following quote is from *Prospects for Interstellar Travel* by John H. Mauldin. The author worked for NASA on the Voyager missions, has a Masters in physics and a Ph.D. in science education. He writes:

"By comparison, solar flares can deliver GEV protons in the same energy range as most cosmic particles but at much higher intensities. Increase of energy accounts for most of the increased radiation danger because GeV protons or their products will penetrate several meters of material." Mauldin goes on to say that, "Cosmic particles are dangerous, come from all sides, and require at least 2 meters of solid shielding around all living organisms." Mauldin then states, "Solar (or star) flares of protons, an occasional and severe hazard on the way out of and into planetary systems, can give doses of hundreds to thousands of rem over a few hours at the distance of Earth. Such doses are fatal and millions of times greater than the permitted dose. Death is likely after 500 rems in any short time, ..." ⁹

I wonder if NASA told the astro-nots that? Perhaps now, NASA will claim that lead-lined shielding was carried on the LEM. Perhaps such mythical lead coffins were the real reason why they patiently scraped away layers of mylar to lighten the capsule? And if the LEM had lead coffins wouldn't the command module have needed to carry three more? Did they transfer two of the coffins back and forth?

It wouldn't matter if the shielding material was made of lead or not. Radiation shielding depends mostly on the mass and density of the material that is between the source and the victim. Lead is effective because of its high density. On an equal weight basis a layer of water is even more effective, despite its lighter mass, but lead is less bulky.

Never mind, NASA had no need for lead coffins because according to them, "The TMG (thermal-meteoroid garment) part of the suit assembly also shielded them against those high-energy nuclear and electromagnetic particles that speed throughout the universe and would have a deadly effect when they strike human tissue if there were no atmosphere to slow them down and stop them." ¹⁰

Wow! First of all the Van Allen Belts are the primary shield, and this NASA suit space fairy tale is a thing of beauty. If a dozen layers of ultra fine spun glass cloth, doped with silicon rubber, some aluminum threads and a coating of teflon can stop particles that may be up to 2 gigavolt (2 billion EV), then imagine what they could do in an atomic reactor where the particle energies are below 18 megavolts (18 million EV). Why one could romp around in Three Mile Island's melted down, still hot, reactor all day long in such a splendid garment.

There is another anomaly in the data on radiation. The engineering physics department of the Royal Aircraft Establishment in Great Britain requires that any dosage in excess of

⁹p. 225, *PROSPECTS FOR INTERSTELLAR TRAVEL*, Mauldin, 1992, American Astronautical Society

¹⁰p. 229, *SUITING UP FOR SPACE*, Mallan, 1971, John Day Co.

10 millirems per hour calls for a lowering of altitude on the SST transport (Super Sonic Transport). This plane normally cruises at an attitude of 65,000 feet on great circle routes over the pole. Should the dosage approach 100 millirems then they must change their flight plan and avoid the polar route entirely.¹¹

The SST is the air transport of choice for the rich and powerful. A hundred millirems, which is equal to .1 rem, is considered too much for them to bear. Whoever designed the chart below must believe that the poor and powerless are similar to cockroaches in their ability to harmlessly absorb huge amounts of radiation. Folks who can't afford to fly the SST can take 100 rems with no real harm done. But that's OK. The men with "The Right Stuff" can take up to 150 rems.

Because of the SST rulings and Mauldin's flat statement death is likely at 500 rems I find the chart shown below, from McKinnon of NOAA, a little beyond the limits of belief.¹²

Acute Dose (rems)	Expected Effects of Acute Whole-Body Radiation Doses
0-60	No obvious effect, except possibly minor blood changes.
100-150	Vomiting and nausea for about 1 day in 5 to 10 percent of exposed personnel; fatigue, but no serious disability.
160-210	Vomiting and nausea for about 1 day, followed by other symptoms of radiation sickness in about 25 percent of personnel; no deaths anticipated.
220-270	Vomiting and nausea for about 1 day, followed by other symptoms of radiation sickness in about 50 percent of personnel; no deaths anticipated.
340-420	Vomiting and nausea in nearly all personnel on first day, followed by other symptoms of radiation sickness; about 20 percent deaths within 2 to 6 weeks after exposure; survivors convalescent for about 3 months.
500-620	Vomiting and nausea in all personnel on first day, followed by other symptoms of radiation sickness; about 50 percent deaths within 1 month; survivors convalescent for about 6 months.
690-930	Vomiting and nausea in all personnel within 4 hours from exposure, followed by other symptoms of radiation sickness; up to 100 per-cent deaths; few survivors convalescent for about 6 months.
1200	Vomiting and nausea in all personnel within 1 to 2 hours; probably no survivors from radiation sickness.
6200	Incapacitation almost immediately; all personnel will be fatalities within a week.

¹¹p. 15, NOAA TECHNICAL MEMORANDUM ERL-22, McKinnon, Dec, 1972, Dep. of Commerce

¹²p. 17, Ibid.

This table must have been concocted by the same governmental geniuses that stationed US troops close to ground zero at those early A-bomb tests in Nevada. Those explosions were as powerful as those used in Japan. But then, after the burst, they had them charge toward ground zero without any protection. Ah, well, if we can believe this chart you and I have no real worries about a dose almost 1000 times higher than the allowable limit for SST patrons.

From page 4 through 14 in McKinnon's book there is a tabular chronology of these events including a series of small tables to show the accumulating doses that astro-nots might have received had they been on a mission during this period. One table shows skin and organ dosage, and is further divided into other columns showing the shielding provided by the suit during a Moon or space walk, the radiation absorbed inside the LEM and inside the command module.

Apollo Radiation Hazard (rems)

August 2, 1972				August 3, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	3	0	0	Skin	9	1	0
Depth	0	0	0	Depth	0	0	0
August 4, 1972				August 5, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	2397	1082	316	Skin	2899	1236	341
Depth	85	68	32	Depth	88	70	33
August 6, 1972				August 7, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	2995	1264	344	Skin	3052	1285	348
Depth	89	71	33	Depth	90	72	33
August 8, 1972				August 9, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	3321	1356	356	Skin	3416	1370	357
Depth	90	72	33	Depth	90	72	33
August 10, 1972				August 11, 1972			
	Space Suit	Lunar Module	Command Module		Space Suit	Lunar Module	Command Module
Skin	3421	1371	357	Skin	3765	1388	358
Depth	90	72	33	Depth	90	72	33

Had the astro-nots been in the command capsule in space during this 10-day period, their skin would have absorbed 2,780 rem. Their whole body radiation would have amounted to 263 rem. This is arrived at by simple addition of the numbers in the chart. McKinnon on page 14 somehow claims that they would have had only 33.9 rem. Their skin would have taken 358 rems but according to the information Mr. McKinnon was given this too would have presented no problem. He has this to say about skin dosage, "Acute dose to skin of 1000 rems produces itching and reddening."¹³ Then he adds to this statement, "3000 rems to epidermis is sufficient to cause severe radiation burns requiring skin grafts."¹⁴

Forgive me, but something is very wrong here. Mauldin needs 2 meters (6 feet) of shielding, but NASA tells you that the walls of the space craft block most of the radiation. Frankly, I don't believe that the tissue paper thin walls (so to speak) of either the LEM or command capsule provide the protection that is reflected in McKinnon's tables. I don't believe his "Whole Body Radiation Chart". The chart must be from the AEC (Atomic Energy Commission), but the data on the radiation shielding is from NASA, and both of these agencies are two of the most untruthful and ax-grinding bureaucracies in existence.

I knew that somewhere I had read that 170 rems is dangerous and almost guarantees a cancerous future. I searched and searched and finally found the source. Much to my surprise it wasn't 170 rems but 170 millirads. which is equal to 170 millirems. This dosage is one thousandth of 170 rems.¹⁵

No wonder the SST aborts its flight plan at 100 millirems. McKinnon's chart shows the lowest category to be 0 to 60,000 millirems (60 rem), and claims it is harmless. And the other chart now shows that on August 4, 1972 a man in a space capsule would have had 32,000 millirems (32 rems) of exposure.

During the Gemini 10 mission, when Collins didn't walk in space (or else why did NASA doctor the pictures?), he reported that he received .78 rads during the first 24 hours in space. He called this an insignificant dose.¹⁶ NASA reported no major flares so I must assume that there were none, but that was for less than an hour outside the ship. All the Gemini missions stayed beneath the Van Allen shield and also spent half their time in the Earth's shadow. Still they received the 'insignificant' dose of 780 millirems. That's almost eight times as much as it takes to send an SST streaking for cover. One wonders what daily dosage would be received by astronauts if they were really on their way to the Moon?

Mauldin tells us that, "The permitted dose for people is about 0.5 rem/year,..." And he also states that, "The average cosmic radiation in local space is about 10 rem/year.. "¹⁷

¹³p. 8, Ibid.

¹⁴p. 10, Ibid.

¹⁵p. 126, POISONED POWER, Gofman & Tamplin, 1971, Rodale

¹⁶p. 99, LIFTOFF, Collins, 1988, Grove Press

¹⁷p. 225, PROSPECTS FOR INTERSTELLAR TRAVEL, Mauldin, 1992, American Astronautical Society

This is exactly twenty times higher than we normally receive from our environment. I must assume from all the recent reports that even this low a dosage may lead to a cancerous future.

Collins reported, "As a bonus, Orbiter confirmed that radiation levels near the moon were low . . ." ¹⁸ Again, I wonder! How could the radiation levels near the Moon be any different than the rest of near space? In fact, since all the Moon trips were allegedly made during the New Moon, the radiation levels should have been higher, since the Moon is closer to the Sun during that period.

Now for two relevant questions. Why haven't some of the astro-nots been stricken with cancer and leukemia, like people who were near Chernobyl? Mr. McKinnon, why has it been harder than pulling a gorilla's tooth to get the solar data I requested; particularly if even a series of giant flares cannot harm our astro-nots as you wrote in your TECHNICAL MEMORANDUM?

But wouldn't you know it? I later discovered that another big flare started on April 17, 1972 when Apollo 16 was only one day out from Earth on the way to the Moon. ¹⁹ Astro-nots Young, Mattingly and Duke should have been fried, but, of course, they weren't. In addition to this, the two that landed on the Moon spent over 20 hours outside the LEM in the searing sunlight and radiation from residual flares. NASA never told us about that one either. I wonder how many more solar flares there were while other missions were allegedly in space?

Beginning in 1994 I wrote to McKinnon again and bluntly demanded the real solar data on every day that the Apollo missions were in space. This time Mr. Ed Erwin, another NOAA employee replied and his letter explained that the original data I was sent was optical data, hence did not contain the X-ray data. I had specifically asked for the X-ray data. He promised to send me the data and he did, but wouldn't you know, a funny thing happened on the way to my door.

Some mail person diagonally bent in half the large envelope near one of its corners. This was ostensibly done to stuff it through the mail slot even though it had "DO NOT BEND" stamped all over it. The final irony was that Murphey's Law struck again. The bend was made across the center of the hard-cased 3.5 inch floppy disk it contained. It takes real determination to bend a 3.5 inch disk and crack the shell. Equally determined, I was able to press it flat. To my amazement my computer was able to read the files it contained.

The Post Office (privatized in the '70s) has done more damage to me than any other government entity. I found out years later that while I was in Florida, because I tried to use book rates, they never delivered half of the 100 science books I mailed out for review.

¹⁸p 118, LIFTOF, Collins, 1988, Grove Press

¹⁹p. 51, ON THE MOON WITH APOLLO 1, Simmons, Dec, 1972, Dep. of Commerce

That is why I use PriorityMail today.²⁰ They have even soaked two of my NASA books in a basin of water. Over the years many NASA books haven't been delivered. Recently, a check was stolen and the case of a video being sent to me was crushed. I finally threatened to sue them as a private corporation. I told them that my first interrogatory would demand to know the actual owners. Most of my mail gets through now. But what else can you expect from an entity that is now owned by our old friends the International Bankers?

The disk only contained columns of numbers without column headers. Do you think that this might be just another example of bureaucratic obfuscation? To this day I have never received the data in useable form. What they have done is to express the particle strength as a matter of momentum. My question now is "How much deadly radiation will you receive if you are struck by a one ton asteroid traveling at 60,000 mph?"

Reading that disk caused a funny thing to happen to the files for this book. My computer developed a disease that wrote DOS into all files that had the word NASA in them. It cost four days of effort, but I was able to rebuild them. We scanned for viruses without success, but it seems strange that out of 40 megabytes on my disk only the 800,000 bytes concerning this book were scrambled. I will always suspect that they were singled out intentionally. DOS only writes once when you install it. After 16 months of backing and forthing over the X-ray data I am beginning to get the feeling that the government is a more clever devil than I am.

I found a technical book entitled *Astronautical Engineering and Science* published by McGraw-Hill in 1963. It was a tribute to Wernher von Braun and written in sections by many of the original NASA experts. This book is divided into four subject areas and each area is then subdivided into various topics.

The one of interest here is entitled "Problems in Radiation Shielding of Space Vehicles" co-authored by Keller, Shelton, Burrell and Downey, four NASA experts. On page 244 they describe the problem, "Space explorers will be concerned with great radiation belts upon leaving the Earth, with the background of cosmic radiation that pervades all space, with the violent particle radiation storms associated with solar activity, and with the radiation belts around planets to be visited."

On page 253, a chart lists the shielding effects from various materials. I was surprised to see that water is one of the more effective shields. The chart shows the various amounts of material necessary to stop the primary protons at their different energy levels. Their chart shows that stopping a 10 MEV (million electron volts) particle requires 10 cm of water, for a 25 MEV particle you need 25 cm of water, and a 50 MEV event seems to call for 90 cm. The first two are not very energetic particles because the Sun emits particles of several BEV (billion electron volts). By contrast, a working atomic reactor emits particles in the 18 MEV range.

²⁰I have stopped using Priority. Now I insure it and hope they lose it!

On page 256 of Astronautical Engineering and Science, there is a chart that shows the dosage of four different flares. On August 22, 1958 there was a low energy flare that could have been reduced to 25 rem per hour with 2 cm of water shielding. On May 10, 1960 there was high flux, low energy flare that would have needed over 36 cm of water to reduce it to 25 rem per hour. There was an intermediate energy flare on November 12, 1960 and it would have required 18 cm of shielding to reduce it to the 25 rem per hour. A high energy event happened on February 23, 1956 which would have required over 35 cm (12-inches) of shielding water to bring it down to 25 rem per hour.

When the Apollo capsule's internal pressure rose to 29 psi (14 psi over atmospheric) during the Grissom-Chaffee-White fire, it ruptured. The walls were too thin to withstand the 14.7 psi required to hold a normal atmosphere and therefore, couldn't have been much thicker than the LEM's hull walls. In fact, even if the command capsules walls were .01 inches thick they would have been 10 times the thickness of the LEM's and still, they would be 50 times thinner than the one centimeter hull used in the above charts.

Even if the flares, which took place during the Apollo 14 & 16 missions, were only of intermediate intensity, the astro-nots should have been doused with 70,000 rem. The actual hull was only a little over one thousandth of an inch thick. So what stopped the radiation? The suit material?

To sum up we have McKinnon, the governments own expert, telling us: "A probability of 10-20% should be considered a low probability for class M events, ..." Only a large flare can be a class M which a medium X-ray emitter event. He also says that at least 1 % will be the deadliest of solar storms, Class X.²¹

In the first chart in this chapter, on page 162, there is complete list of the flares for 25 years. The total number of flares for the period is 134,793. This averages out to 5,391 flares per year or 14.76 per day. The Apollo astro-nots spent a total of 85 days in space. Thus during that period of time the average number of flares that could be expected was 1254. If we use chart number 2, which contains the monthly totals for these same periods of time, we find the total to be 1485 flares. This increase is expected because the trips took place at the high end of that solar cycle.

To send all these missions to the Moon without reporting severe radiation problems, NASA is effectively telling us is that not one flare emitted heavy X-Rays or protons during this time period. But McKinnon's probability of 1 % would mean, at least, 13 super deadly flares of X rated capacity or over one per mission. In addition they should have been exposed to 268 M class (medium) flares which is 1/5 of the total number. M class flares are also deadly without the 2 meters of shielding. Referring again to the chart on p. 256 of Astronautical Engineering... we see that any hull of one cm thickness would have allowed 70,000 rem for each intermediate flare into the module and many times more from an X-rated flare.

²¹p. 29, NOAA TECHNICAL MEMORANDUM ERL-22, McKinnon, Dec, 1972, Dep. of Commerce

Mauldin states: "Cosmic particles are dangerous, come from all sides, and require at least 2 meters of solid shielding around all living organisms." "Solar (or star) flares of protons, an occasional and severe hazard on the way out of and into planetary systems, can give doses of hundreds to thousands of rem over a few hours at the distance of Earth. Such doses are fatal and millions of times greater than the permitted dose. Death is likely after 500 rems in any short time, . . . "22

Since the whole capsule was only 13 feet in diameter, 2 meters (6 feet) of hull on each side would have left a space in the center about 1 foot in diameter. Therefore all 27 of the astro-nots who went to the Moon should be dead from radiation. Yet, all lived to tell the tale. Were they protected by miracles?

I also find it very suspicious that Aldrin spoke of space radiation only once in his last book. He is referring to the Gemini 3 mission, well under the Van Allen shield, when he writes, "As the crew began testing the effects of weightlessness and radiation on biological samples, ..."23

There's one more interesting tidbit that I ran across. Just before re-entry, the standard procedure on all the Apollo missions was to send the service module on a trip toward the Sun. Mr. Hurt summarized it this way, "... Mission control reprogrammed the rocket's remains to veer away from the Moon and enter solar orbit to be burned up by the heat of the sun."24

At first I believed that this statement meant that the module was sent into the Sun. Before one can send a module into the Sun (literally by braking the rocket so that it slows down enough to fall into the Sun) you must know its current attitude and the direction of its axis. How did they know this after uncoupling? Did the service module have its own Inertial Measuring Unit? Its own computer? And where did all that extra fuel come from? Did NASA really aim a metallic shell about whose atoms we know little, into a Sun about which we know less, to produce an effect about which we know nothing?

The previous statement was a paraphrase of a statement Voltaire made in speaking about doctors. "We put drugs about which we know little, into bodies about which we know less, to cure diseases about which we know nothing."

Some heterodox scientists believe that some solar flares are triggered by meteorites that crash into the Sun. If this is true, would a small metallic shell mass be enough to cause the Sun to burp? There's an even worse possibility. Could the spectacular solar storms of August 1972 have been generated by a service module of a previous mission hitting the Sun? It's more likely to have been sent into a solar orbit — part of the accumulating space debris that NASA now admits is an increasing problem. However, if this was the case, how

²²p. 225, PROSPECTS FOR INTERSTELLAR TRAVEL", Mauldin, 1992, American Astronautical Society

²³p. 126, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

²⁴p. 74, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

could Skylab's heat build-up have been a surprise? Does this mean that one branch of "Never A Straight Answer" doesn't even tell its other branches the truth? Hell, do any of our bureaucracies even know the truth any more?

15.1 ADDENDUM

Regarding damage to living things we find the following passage in Mallan's book. "But on much longer, later flights in earth-orbiting satellites, bacteria, seedlings, and insects showed remarkable changes caused by radiation strikes in combination with weightlessness."²⁵ He goes on to describe some of the mutations but swallows NASA's explanation that these effects don't count because the insects have much shorter life spans than people. If this was true how can they explain the incredible capacity of the cockroach to absorb radiation? All of these flights stayed well below the Van Allen shield. This book was published in 1971 when there were still a couple of Apollo missions left to do. Why wasn't this ever spoken of in the popular press or on TV. When did these findings change? How could lack of gravity affect the genes of bacteria, seedlings and insects?

When Mallan speaks of longer flights they are all less than a week in duration. What happened to all the humans who orbited for much longer periods of time? Many of them were still young enough to have had kids. Did NASA intentionally release more genetic time bombs into the gene pool? What amounts of radiation are the shuttle people absorbing.?

A dosimeter is worn by every astro-not and I have never seen any data about the absorbed REM from even the shuttle people, let alone the Apollo astro-nots, who didn't have the protection provided by the Van Allen shield. I now know that on very high altitude flights aircraft skins accumulate radioactive particles which are dangerous to those who contact them. What dosage is on the shuttle skin? Do we ever hear anything about that?

²⁵p. 172, SUITING UP FOR SPACE, Mallan, 1971, John Day Co.

16 BY INVITATION ONLY

Shortly after I started writing this book, NASA sent me, believe it or not, a special invitation to attend one of a series of six national "town meetings" scheduled over the course of six weeks. I drooled at the opportunity to ask a few direct questions. However, whether by plan or accident, that invitation was a day late and a dollar short as the old bromide goes. I received it at my home in New Jersey on November 23, 1992.

The "town meetings" were scheduled to be held on the following dates:

Raleigh, NC	November 09	Hartford, CT	November 17
Indianapolis, IN	November 20	Carson, CA	December 03
Tampa, FL	December 11	Seattle, WA	December 16

Unfortunately NASA used my previous address in Florida. Forwarding the letter by the post office as shown by the date on the forwarding stamp, took an extra 2 days. The letter was first postmarked on November 17th. That date precluded my attending both the Raleigh or the relatively close Hartford "town meetings." Since I wasn't about to fly to Tampa (on Florida's west coast) for a NASA "town meeting", I missed the opportunity of causing them an anxiety attack.

Then, I glanced at the date of their letter and really got angry! The letter was dated October 13th! I responded with a letter to Goldin, NASA administrator, complaining about the fact that their invitation lay buried somewhere for 36 days. What I asked for (sort of a consolation prize) was a copy of the picture found on the cover of this book. In due time I received a reply from Douglas Isbell, who sort of apologized, but complained about some of my language. I had dared to call the jerk who failed to mail the letter for 36 days a "lazy person". Isbell never did send me the picture.

If my invitation was typical, then NASA stacked their "town meeting" by inviting only those who they felt were NASA believers and sympathizers. However, on May 27, 1993, I did receive a full size, 64-page NASA brochure titled "1992 TOWN MEETINGS" and subtitled "Toward a Shared Vision." These "town meetings" were created to share NASA's public relations' pipe dreams with the people.

The pamphlet showed that the meetings were more on the order of propaganda conventions than "town meetings". I say this because of the preponderance of highly favorable

quotations from participants scattered liberally throughout the booklet. The first thing we find is a message from Daniel S. Goldin, NASA's administrator, to the effect that the meetings were a "resounding success."¹

A few pages later, is a statement to the effect that once again the tail has wagged the NASA dog.²

"Goldin ended his talk by outlining the underlying rationale for the NASA vision that has emerged from the Agency's employees. This rationale has four major themes:

"NASA exists to inspire people and serve as a source of intellectual nourishment. From a practical standpoint, NASA and its programs are an ideal vehicle to enliven education. From a more philosophical standpoint, the desire to explore and conquer the unknown appeals to a basic component of human nature.

NASA exists to provide hope that the future will be better than the past. A hope that our children and grandchildren will enjoy good health, a clean environment and a prosperous society.

NASA exists to create economic opportunity, because technological advances are a key way to create new products, new industries and new jobs. And this opportunity should exist for all people, from all cultural and ethnic backgrounds.

And finally, NASA exists to serve as a catalyst for peace in the post-Cold War world."

Following the information was that NASA had its very own cable TV station called NASA Select.³ They also put out recorded radio broadcasts. I also received a total shock when the results of their propaganda convention revealed that although NASA was wonderful, the hand-picked attendees biggest criticism was that NASA is not quite bold enough. They wanted more Apollo-type missions! An overview followed praising the positive results of the "town meetings", accompanied by a NASA promise to do even more with our money in the future.

Then I discovered a strange piece of information which declared that NASA plans to review its patents and licensing procedures.⁴ The idea of our own government's bureaucracy spending our tax money to develop something, but then withholding it from us by license and patent, is totally obscene. Patents were intended to help individual inventors profit from their creations, not to give governmental monopolies.

The brochure then went on with a synopsis of each of the meetings. And guess what? Buzz Aldrin himself made a public appearance and questioned the NASA panel. The ques-

¹p. 5, 1992 TOWN MEETING, NASA, 1992, NASA

²p. 9, Ibid.

³p. 15, Ibid.

⁴p. 24, Ibid.

tion that comes immediately to mind is, "Why wasn't he on the panel where he could be questioned?" Maybe his questions were pre-arranged "soft balls".

Parenthetically, there are 27 pictures in that book and the administrator is on ten of them. Not being familiar with corporate blurb, I can't tell whether this is just 'par for the course' or simply because he's so photogenic.

Surprisingly there was not a word about Moon bases or Mars missions. Just a lot of politically correct social statements. The last time NASA ripped us off they told us they were the "Space Agency". Now they are social workers. Looking back at their "rationale" printed above, those paragraphs are hardly the reason for being an agency, presumably on the cutting edge. Also, when the administrator speaks of the "Agency's employees" does he maybe mean the CIA, which is often referred to as "THE AGENCY"? I personally believe that administrator Goldin, or any other NASA pooh-bah who is so interested in things social, should be transferred to a job running the welfare bureau.

However, to give the NASA devils their due, they actually did print a few of the adverse comments made. Someone complained that exploring space should be delayed because there are so many social problems at home. Goldin responded, mat he was sympathetic to such feelings, but concerned that they ignore the importance of NASA's role in creating "opportunity for the future. Imagine that. He forgot to mention a well know previous agenda: a "Man on Mars" at a projected cost of around a trillion dollars.

Consider, just by reducing our federal taxes, the amount of the current NASA budget of 14 billion would be a great start at healing many of our social problems. I speak of building more prisons, reducing the homeless, etc. Economic slavery and social problems are almost synonymous.

Now that I have been educated by my readers I see that half the people in prison are there for taking drugs and are serving manditory sentences. Many real criminals are walking free because they became "snitches" for the power structure.

Another person questioned whether NASA was beginning to sound like Star Trek? Never mind that the production techniques were similar, at least Star Trek was entertaining, and didn't cost us forty billion bucks.

A civilian scientist complained that a new space station would be too costly for the science it could accomplish. I strongly doubt that the sauna called Skylab accomplished anything. If the Russians have told the truth, their MIR ships have a lot of experience at living in space and should probably be duplicated. Fortunately, Congress killed the space station in November 1993.

In large print filling the entire inner margin of "the invitation" is a comment complaining about NASA's attempt to become another social service bureaucracy. Also, one engineer displayed a carabiner clip for climbing, he bought at a sporting goods store for \$20. He

complained that the same clip costs NASA \$1000. The administrator ignored this question, of course. This engineer apparently didn't understand that this is the method by which secret funds are accumulated. This purchase would bring back about \$900 in cash to be spent on secret budgets or to be pilfered.

Another man called the space station a dud, and another predicted that it would take over one hundred years before a space colony could survive. A woman, trapped in poverty, rightfully complained that the space program is not real to the homeless and other low income people. But, hey, it wasn't "real" to Buzz Aldrin either.

Found on the inner margin of another page is the surprising, but anonymous quote, "The many self-serving statements regarding NASA's mission and achievements serve to highlight my misgivings about the status of the agency. In particular, flights of fancy regarding resources and benefits that might accrue from human, Mars, moon and asteroid exploration are not founded in science." Reprinting such comments, by NASA, may make them seem open and above board. But beware, their Mars agenda is still paramount.

Similarly, a large print, top to bottom inner margin, comment made by another detractor said, "As long as there are so many Americans who can't afford health insurance, who don't have a home, who don't have sufficient [food] to eat, I think sinking money in NASA is a crime against this nation."

I'll second that! Especially since the original forty billion bucks spent during the 1960's never got us to the Moon, or even out into real space. I wonder what all those critics will say about NASA after they read and understand the information in this book? Will we stand idly by while NASA "goes" to Mars? Of course, we need another federal social agency like another hole in our heads!

There is a federal law that explicitly prohibits the use of funds appropriated by Congress for the purposes of lobbying. It is found in Sec. 1913, Title 18, U.S.C. But if the government book, *America At The Threshold* is not lobbying, what is it? If these, by invitation only TOWN MEETINGS weren't lobbying, what is? Is that cable TV station they own authorized by legal exception? And the radio broadcasts? And if the NASA info-mercials propagandizing their new "Martian Adventure" that are frequently being broadcast on TV isn't lobbying, what the Hell is it?

The entire upper echelon of NASA should be indicted under law, and many other laws too. I hope this book sparks a Congressional investigation into all the suspected fraud, theft, arson and murder!

Note: The only thing this book sparked was a budget reduction to almost zero in May '95. That was accomplished by mailing copies to any Congressman that seemed rebellious. As I write these words, NASA has been stone broke for over a year and nothing has changed. It did prove that the private owners of the FED are supplying immense funds to NASA. That also explains the source of the CIA's funding all these years and why the CIA is their private tool.

17 GOTCHAS!

On Sunday, July 24, 1993 — the anniversary of the safe return of our Apollo 11 "First Men on the Moon" intrepid astro-nots — this manuscript was complete, awaiting only make up and review of the galleys. I awoke, as usual, with the first light of dawn and a distinct feeling that something needed doing besides the obligatory bathroom visit. I obliged the bathroom but couldn't go back to bed where I felt I really belonged. Something was nagging my mind.

I staggered to my meager collection (four books) on space flight fairy tales and methodically poked through them in an aimless fashion. I was trying to find out why my hunch button was zinging since I hadn't even looked at any of them for over a year. The last one to be finger flicked was a coffee table book called FOOTPRINTS ON THE MOON published by the Associated Press in 1969. It has 200 large size, glossy pages, uses extra large type and is a typical coffee table book containing scads of full color pictures.

When I reached the end of this book, I began another flick-through. When, nothing happened, I skimmed through it again. Then I finally recognized what I had been searching for. That search triggered all the "Gotchas" in this section added after the first printing.

17.1 GOTCHA # 1

On page 192 of FOOTPRINTS is an official NASA photo of the "Flag Salute Ceremony" being executed on the Moon during the Apollo 11 mission. Armstrong and Aldrin surrounded the flag as the light from the low altitude Sun cast long shadows of each of them.

The picture printed here is reduced in size, and in black and white, because neither size nor color is germane to this "Gotcha". I didn't even try to get a duplicate of this picture from NASA. The three pictures I had previously ordered took about eighteen months and countless phone calls before they were delivered. When I received them, only one of the pictures was what I ordered. They sent two substitutes I didn't want or need.

Before continuing with the analysis of this picture let's remember some background. It was decided that the Apollo 11 LEM, the "Eagle", should have optimum lighting conditions for the first lunar landing. Collins describes NASA's choice of the Sun angle for viewing

the ground during landing. "If too high, i.e. overhead, the craters and boulders would not cast shadows, and depth perception and obstacle avoidance would be a real problem. Too high also meant the surface would be too hot. Too low, and the shadows could get so elongated that they would obscure other useful details and again make a visibility problem for the crew. A sun angle of about 10 degrees was deemed perfect"¹ Then Collins spent a few pages describing the cause of the Moon's phases (waxing and waning), and how they determined the necessary time of departure from Earth in order to land at the chosen site so that the Sun would be ten degrees above the horizon.

The Eagle landed at 4:18 EDT.² A short time later the Eagle, now calling itself "Tranquility Base", transmitted the following: "I'd say the color of the local surface is very comparable to that we observed [their typo] from orbit at this sun angle — about 10 degrees ..."³

So, here is the picture that revealed its hidden treasure on the silver anniversary of the Apollo 11's return to Earth. A blurb next to the photo tells us that Armstrong is holding the staff and that Aldrin is holding the flag. If their actual heights were accurately reflected by the lengths of their respective shadows, then side by side they would have resembled the old cartoon characters — Mut & Jeff.



¹p. 323, CARRYING THE FIRE, Collins, 1974, Ballentine Books

²p. 205, FOOTPRINTS ON THE MOON, Barbour, 1969, The Associated Press

³p. 295, WE REACH THE MOON, Wilford, 1969, Bantam

The first discrepancy is immediately apparent. Two men of nearly equal height have cast shadows of very unequal length. Not only that, but, once again, shadows which should be parallel, converged. The following measurements were taken from the reproduction printed in FOOTPRINTS, using a dial vernier caliper calibrated in inches.

Astro-not	Height (in)	Shadow length (in)
Armstrong	2.140	3.065
Aldrin	2.200	4.440

Aldrin's shadow is 45 percent longer than Armstrong's shadow. There is obviously something very wrong with this picture. At first glance it seems to require two different sources of light. Willis Carto of the national weekly newspaper "The Spotlight" soon ended that thought. He called it nonsense, and it was! The only possibilities left are it is a composite picture; the shadows have been painted in or it represents a sample of early computer graphics.

And even if there are two Suns, in the Moon's sky neither one is anywhere near the 10° altitude NASA babbled about. A little plane trigonometry reveals that Aldrin's personal source of illumination is at 26.4° altitude,⁴ but Armstrong's shadow-casting light has outraced Aldrin's, and is at 34.9° of altitude.⁵

The EVA took place about 7 hours after landing. Since a lunar day is 30 Earth days long the Sun moves through the lunar sky only 12° in 24 hours. Seven hours would equal about 3.5° which would place the Sun about 13.5° off the horizon during their famous space walk.

At that altitude the shadows would have been a little over 9 inches long in the original photo. This is over twice as long as the longest shadow shown in the picture.⁶ No single source of light can create unequal shadows from men who are nearly equal in height. And, as Mr. Carto also pointed out, where is the flag's shadow which should have neatly bisected Armstrong? Gotcha NASA!

NASA apologists have explained the longer shadow by proudly announcing that the flag's shadow has added to the length. If that were true then the angle from the tip of the flag to that end of Aldrin's shadow should be the same as the angle between Armstrong's backpack and the top of his shadow. Using the flag pole to establish vertical, Armstrong's shadow shows the Sun to be 5° above the horizon while the flag's shadow shows it to be almost 20°. No matter how you look at it, this picture was FAKED!

⁴Tan (A) = 2.20 / 4.44 = tan (4.95) = 26.4 degrees

⁵Tan (A) = 2.14 / 4.44 = tan (6.98) = 34.9 degrees

⁶Length = Ht / Tan (13.5 degrees), L = 2.2 inches / .2400 = 9.16 inches

17.2 GOTCHA #2

Recently, while reading Aldrin's *MEN FROM EARTH*, I found this NASA policy statement. Aldrin is quoted here reminiscing about his Gemini 12 spacewalk when he happened to glance up and see something twinkling. "Stars in the daylight?" I asked aloud. 'I don't think so.' On the early Mercury flights, NASA scientists had predicted the astronauts would see stars in the daylight, but the astronauts, all jet pilots with high altitude experience, had been skeptical. Soon they figured out that you saw stars in orbit only when you were in Earth's shadow: night."⁷

After waxing poetic he then said that what twinkled was a plastic bag. The early rocket plane pilots saw stars in the daytime. Subsequently, however, on each Apollo flight NASA tells us that they navigated using the "dim and fuzzy" stars. Well, since they were not in the shadow of the Earth where did — all of a sudden — these dim and fuzzys come from? Since these statements are diametrically opposed, one or both must be a lie! What is the truth and where does the truth lie and why did they bother to lie?

Repeating my statement from "Star light — Star bright," I believe that the brighter stars are visible to the naked eye in the daytime, from mine entrances, deep wells, and through a long black tube — if you know exactly where to look.

The truth could be easily determined by a ride on the next shuttle. However, since I couldn't, wouldn't dare ask NASA for that ride, I thought up a simple experiment. What I needed was an astronomer with a small "backyard" telescope equipped with clockwork tracking device. This is a motorized clockwork unit that compensates for the Earth's rotation and keeps the scope precisely and automatically on a target.

If one centers a bright star that is low in the east at midnight, when daylight breaks the scope would still be pointed at the target, provided the tracking device was working properly. At that time one would either see the star or not.

Before I could make any arrangements for this experiment the "SAT & TELESCOPE" magazine came to my rescue. In the September 1994 issue on page 99 is a two page article entitled "How to See Stars in the Daytime". It goes on to say that only the bright stars and the planets are visible under 50-power magnification. This is not exactly naked eye visibility that I had heard about, but it does prove that here at the bottom of the murky, polluted, dusty, water laden fluorescent well we call the atmosphere, people can see stars in the daytime.

This question is for you, Buzz Aldrin. How could you, and every other astronaut not be able to see the stars in the daytime from a vantage point 160 miles above the Earth's surface, where the remaining atmosphere is so tenuous that it might just as well be the vacuum of space? Gotcha NASA!

⁷p. 156, *MEN FROM EARTH*, Aldrin & McConnell, 1989, Bantam

17.3 GOTCHA # 3

On each of the 9 Apollo missions, which allegedly rounded the Moon, the command capsule and the service vehicle had to separate from the last stage of the Saturn booster's now dead carcass. This was accomplished by using explosive bolts and cable shears called "Pyros". After this separation, which was done as they neared the Moon, the command module would be turned around so that the command capsule could probe the LEM's drogue and connect up the access tunnel. Once attached the hatch covers on both LEM and command capsule could be removed, allowing free, if cramped access. Without any real practice, except in simulators, these men did this nine times in a row without a problem.

Which also means that nine (repeat 9) times in a row the vital, pyros must have worked flawlessly. If one exploding bolt "hung-fire" for even a millisecond, or if the exploding shear left even one wire not completely severed, the delayed and uneven force would induce a motion contrary to the rest of the impulses. The carcass would begin to rotate and by the time the command capsule reversed its attitude, linkup would no longer be possible. It would be like taking a flying probe at a rolling drogue. How could such perfection be possible nine times in a row? It wasn't! On Apollo 13 the blasts that separated the service module not only rocked the craft but caused a rippling movement.⁸

Remember the Apollo mini-disasters that I spoke of in "No Business Like Showbiz"? Here's one that Apollo 14 was supposed to have gone through. Stu Roosa had the Apollo capsule thrust its probe into the little LEM's drogue only to meet with total rejection. Over the next hour or so he backed off and tried again and again. But each time, his probe was refused entrance. He had only enough steam for one more attempt when Shepard told him, "This time, juice it!"⁹ On the sixth attempt he rammed it with all his might and the probe latched inside the drogue real tight.

Are we supposed to believe that on every attempt to drive that probe home longitudinal axes of both ship and carcass were dead in line? So matched that not one dyne of force was transmitted off-center? Any off-center force would begin to rotate one or both vessels.

There may be some truth to the old saying that every dog has its day. I'm an old dog and Aldrin spit forth this gem while writing about the Apollo 9 mission. My comments are in normal type and parenthesis. "A couple of hours later they were feeling better and had separated the CSM (command module) from the S-IVB third stage (last stage of the Saturn booster). Scott then deployed his command module's docking probe and thrust the spacecraft neatly around to line up with the conical drogue that was nestled at the top of the lunar module (LEM). The latches all snapped properly into place. Just over three hours into the mission they were hard-docked with the LM. Dave Scott then backed

⁸p. 165, 13: The Flight That Failed, Cooper, 1973, Dial Press

⁹p. 289, MOON SHOT, Shepard & Slayton, 1994, Turner Publications

the two docked spacecraft away from the third stage and thrust well clear of the slowly tumbling white booster."¹⁰

Neither exploding bolts, nor cable shearing, nor the jets which moved the command module away, moved the booster. Yet, un-docking, which starts out in perfect alignment, can start the carcass slowly rotating or tumbling. A likely story! Gotcha NASA!

17.4 GOTCHA # 4

Remember the PLSS back-pack discussed in the section on the LEM's thermal problems? That entire discussion concerned the volume of water which was carried in the PLSS for cooling purposes. But the efficiency of the explosive freezing cooling unit became moot when I finally located a cutaway drawing of a PLSS. By taking the ratio of its known length and width, not only did I determine that the drawing was to scale, but I determined what the scale was. By that scale the water storage containers were 3 inches in diameter and 14 inches long.¹¹ This gives a capacity of 100 cubic inches, .43 gallons, or 1.63 liters. Less than half a gallon of water would last about 27 minutes, on the Moon even at the mythical rate of 100 % efficiency. That's a big difference from the 4 hours PLSS capacity claimed by NASA. Does NASA have an unrevealed way of concentrating water? We keep hearing about space age benefits — but that one would be incredible. Gotcha, NASA!

17.5 GOTCHA # 5

Aldrin claimed that access to, and egress from the LEM's side hatch was done on hands and knees.¹² Bill Kaysing claims that a friend of his who visited the space museum in Washington, DC a few years ago took a tape measure and succeeded in actually measuring the LEM's hatch as well as a space suit and back pack. He says that the hatch was simply too small to allow a man with a back-pack to pass through.

By scaling a picture of a 1/48 th scale model of a LEM, I determined that this side hatch (the one that leads to the ladder) was about 30 inches on each side. New information has it that it was 36 inches wide by 25 inches high. The young astro-nots had a ballooning pressurized suit to keep them from folding tightly at the waist, wherein I had my fat little belly accomplishing the same thing. It was a wash! Stripped to a pair of shorts I tried to use hands and knees to get under the edge of my kitchen table.

¹⁰p. 211, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

¹¹p. 161, The Illustrated Encyclopedia of SPACE TECHNOLOGY, Gatland, 1981, Harmony Books

¹²p. 240, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

Since it has only 25 inches of clearance, in order to fit I had to go down to elbows and knees instead of hands and knees. But, if I add 10 inches for the thickness of the back pack, the LEM's hatch would have to be a minimum of 35 inches high. NASA never mentioned that an astro-not would have had to wriggle on his belly, like a snake, to get through the hatch. How come? Gotcha, NASA!

17.6 GOTCHA # 6

The LEM consisted of an upper pressurized ascent unit whose function was to pilot the whole unit down to the moon using the large rocket motor in the lower unpressurized descent unit. To escape from the Moon, the upper ascent stage would then blast free from the lower part and ferry the Moon-walkers back to orbit to link with the command module. This ugly insect consisted of jutting angles and flat planes. Any first year structural engineering student would know enough to design a pressure vessel as a sphere, but the moron who designed the LEM didn't seem to know this.

So the NASA apologists can't claim that the LEM was not pressurized, we have this statement about the Apollo 11 LEM; "They worked their way to the ladder and squeezed into their "flight deck," and sealed and pressurized their cabin."¹³

On page 160, of The Illustrated Encyclopedia of SPACE TECHNOLOGY there is a cut away drawing of the LEM. It has been drawn to scale and from that I determined that there was at least one large flat panel with dimensions of 3 feet across and 4 feet high. Another section of the drawing shows that the ribs are on 6 inch centers. I assume this section to be typical and that the rest of the LEM was ribbed the same way.

Aldrin speaks of the LEM's ribs thusly, "...and there were ominous corrosion cracks in the LM's paper-thin aluminum ribs."¹⁴ A tissue paper thought here raises its thin head. Since the support ribs of vehicles, vessels and structures are always much thicker than their covering, you can imagine what the hull thickness must have been.

Continuing with the dissection at hand, I shall assume that the designers correctly put the ribs across the shortest span. The LEM was pressurized in space to 5.2 pounds. That's the minimal pressure needed to sustain life on a long term basis. Such being the case, and since there are 144 square inches to each square foot, the hull was under a load of 750 pounds per square foot. Compare this with 30 pounds per square foot allowed, and designed for on the floor of your home, or with the 200 lb/sq ft loading of commercial warehouses.

¹³p. 247, MOON SHOT, Shepard & Slayton, 1994, Turner Publications

¹⁴p. 178, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

This simply means that each rib (6 inches on center) had to carry 1100 pounds. In structural engineering, loading is translated into a concept called the Maximum Bending Moment (MBM) which is measured in inch pounds. For a beam (rib) supported on both ends and carrying a load the formula is $W \times L / 8$, where W is the load in pounds and L is the span in inches. Therefore the Maximum Bending Moment for each rib is $1100 \times 36 / 8$ or 4,950-inch pounds.

The restraining moment needed to support this load is found by determining a thing called the Section Modulus (SM). This is found by dividing the MBM by the working tensile strength of the material involved. I don't know which particular aluminum alloy was used, nor do I figure I will live long enough for NASA to answer my letters, but since all aluminum alloys have less strength than steel, I shall pretend that the paper-thin ribs he (Aldrin) spoke of were made of common steel which has a working tensile strength of 20,000 pounds per inch square.

The Section Modulus (SM) needed to hold this load is found by dividing the MBM by the tensile. Then $SM = MBM / 20,000$ or 4,950 divided by 20,000 which equals .2475. The proper size rib to do that particular job is $2 \times 2 \times 1/4$ inch steel angle iron which has an SM of .25. Would you call a chunk of metal that is 1/4 inch thick paper-thin? Neither would Aldrin! Obviously, whatever ribs he was writing about would never, ever, hold the internal pressure necessary to keep men alive and breathing in space.

Just a few words now to put the icing on this particular "Gotcha". Seven paragraphs ago a direct quote was used to describe how "they repressurized their cabin." They went on to tell how they did this long checklist. Here's the very next paragraph: "They removed their boots, slipped out of the backpacks heavy with life-support equipment that had kept them alive on the moon, reopened the hatch, and dumped them along with crumpled food packages and filled urine bags onto the surface."¹⁵

Not a word about spending another two hours or so venting the LEM, or about hooking up air lines to stay alive once the hatch opened onto the vacuum of space. There was no airlock on any LEM! Gotcha , NASA!

17.7 GOTCHA # 7

I finally found out why the early NASA engineers and scientists who wrote Astronautical Engineering and Science in 1963 used 25 rem as a benchmark on their charts on hull thickness versus solar activity. I ran out of gas at my daughters house and while waiting for rescue I began to read some old "National Geographies" magazines. The May 1987 issue held a feature story by Mike Edwards entitled "Chernobyl — One Year After". On

¹⁵p. 247, MOON SHOT, Shepard & Slayton, 1994, Turner Publications

page 640 I found the following statement. "In general, 5 rem is considered acceptable for a nuclear-plant employee in a year, with 25 rem (the total countenanced for Chernobyl cleanup workers) an allowable once-in-a-lifetime dose."

The Apollo 16 mission spent 13 days out from under the Van Allen radiation shield. There had to be an average of 14.47 flares per day as found from the "Monthly Counts Of Solar Flares" chart. This is a total of 188-flares and for arguments sake we will stipulate that the better than 1 % of heavy flares didn't happen on this trip nor during the other 72 days that the other Apollo missions were mooning the Earth. I will even stipulate that their ship's hull and their suits were a centimeter thick. However, 20 % of these flares had to be of intermediate activity and each dosed the crew with 25 rem. This represents 37.6 flares which gives astro-nots John Young, Ken Mattingly and Charles Duke a grand total of 940 rem apiece.

Three astro-nots went to the moon twice and for the following calculations we shall only consider the intermediate flares. Astro-not Dick Lovell was allegedly present on Apollo 8 for 6 days and on Apollo 13 for 6 days. This 12 days of total exposure was 870 rem. Astro-not Gene Cernan supposedly was on Apollo 10 for 8 days and on Apollo 17 for 12 days for a total of 20 days. This amounts to total of 58 flares for a total dose of 1445 rem. However, astro-not John Young seemingly flew on Apollo 10 for 8 days and on Apollo 16 for 13 days, for a grand total of 21 days. This gives us 61 flares and 1525 rem exposure. At this exposure they all should have died in space. These men are as radiation resistant as cockroaches. Gotcha NASA!

17.8 GOTCHA # 8

I saved this for last because it is the greatest "Gotcha" of them all. Please recall that I have sarcastically referred to the Apollo 13 explosion, and the other near disasters that NASA kept reporting in the chapter titled "No Business Like Showbiz". I have finally pinned the NASA Monarch butterfly to the board.

In the spring of 1970 our country was preoccupied with "policing" South Vietnam. Each night on TV the body count of the enemy was reported. This was presumably our scorecard the way we could determine whether we were winning. By the time our rear guard was being helicoptered from the roof of our embassy in Saigon the total body count had risen to include the entire population of both North and South Vietnam. Some of us thought we had been lied to about the numbers. Later we would find out that the count also included bodies from the CIA's secret war in Laos and Cambodia. How can there be a secret war without complete collusion of the news media?

There was also much domestic strife, including rioting on our college campuses. Poverty was proliferating as fast as the demonstrations. Even patriotic Americans were beginning

to look at Moon-walkers and ask, "Who cares?" The ongoing space opry called the Apollo missions needed to be spiced up, say, with high drama, danger and suspense. So, enter the Apollo 13 mission with Dick Lovell, as mission commander; Jack Swigert as orbital house-keeper, and Fred Haise, who was going along just to gambol on the Moon with Lovell.

At this time I want to interject the sequences of a normal Apollo mission to and from the Moon.

1. Lift off followed by the ejection of the escape tower.
2. The booster's 1st stage shuts down, detaches, and the 2nd stage fires.
3. The 2nd stage shuts down, detaches, and the 3rd stage fires.
4. The 3rd stage shuts down when the craft is in Earth orbit.
5. The 3rd stage fires again to accelerate the craft toward the Moon.
6. The combined command module and the service vehicle, as a unit, detach from the third stage which holds the LEM in its top section.
7. The combined module then turns around and links nose to nose with the LEM.
8. The large engine in the service vehicle makes up to three, mid-course corrections.
9. The service engine fires again to slow the craft down to allow it to enter and maintain a lunar orbit.
10. The LEM detaches and uses its lower engine to land on the Moon.
11. The LEM's upper stage detaches, and carries the men back to the command capsule, leaving the lower stage on the Moon.
12. The upper stage is detached and abandoned in lunar orbit, and the service engine fires the linked craft toward Earth.
13. The service engine makes mid-course corrections, and then it too is detached from the command capsule just before re-entry.

However, in Apollo 13's dramatic plot, the service module is destroyed by exploding oxygen tanks on its third day out. Just for argument's sake we will assume that all the mid-course corrections had already been made by the service engine. Remember that all the lost oxygen was to be inhaled by the men, and slurped up by the fuel cells to provide electric power and water for drinking. Most importantly, it was necessary to remove heat from the craft by explosive freezing. Speaking of the service modules's engine, "They knew the powerful engine would no longer fire, starved as it was of the electrical energy needed

for ignition and burn. Without it they couldn't get into orbit about the moon. More importantly, without it they wouldn't be able to get home."¹⁶

The outcome of this tragedy was that not only would the mission objectives not be accomplished, but they were about to lose their lives deep in cold space, just before or immediately after their water and oxygen ran out.

To save themselves, the crew left their spacious 210 cubic foot mansion and had to move, bag and baggage, into the 160-cubic foot Mother Hubbard's shoebox called the LEM. The crew compartment dimensions of the LEM, as reported on pages 158–160 in the Space Technology Encyclopedia, was 7 ft 10 inches in diameter and 3.5 feet high. This is yet another dimension that doesn't fit NASA's story since we were always given the impression that the astronauts were standing as they came and went from the Moon's surface.

The information below was also gleaned from the same pages of Space Technology Encyclopedia.

Part	Weight (lb)	Fuel wt.(lb)	Thrust (lb)
Command capsule	13,090	?	?
Service vehicle	?	54,074	20,500
LEM	33,200	?	10,000

More information on the LEM comes from two other sources. First the weight of the LEM's fuel is derived from the following information:¹⁷ The ascent stage weighed 10,600 lbs and the empty descent stage 4,800 lbs for a total weight of 15,400 lbs. Subtracting from the 33,200 lbs (total weight of the LEM) we find that there was 17,800 lbs of fuel on the lower stage of the LEM. That's about 9 tons.

The combined weight of the command module and service vehicle was 100,000 pounds.¹⁸ Adding the 13,000 lbs of the command module to the 54,000 lbs of the fuel comes to 67,000 lbs. Subtracting that from the 100,000 lbs gives an empty service vehicle weight of 33,000 lbs. The weight of the attitude fuel was small and not needed for these calculations. Let's make two reasonable assumptions. The first is to assume that the service vehicle had expended some of its fuel on minor mid-course corrections. The second assumption is that the majority of the fuel left was needed to bring the command capsule back home.

Lovell is quoted by Hurt as saying, "We had to continue on with about 400,000 pounds(sic) of unburned fuel plus all the mass it had otherwise."¹⁹ I strongly suspect Lovell was talking

¹⁶p. 261, Ibid.

¹⁷p. 57, MOONGATE, Brian, 1982, Future Science Research Publishing Co.

¹⁸p. 157, THE VOYAGES OF APOLLO, Lewis, 1974, Quadrangle

¹⁹p. 208, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

about 20 tons (40,000 pounds) of remaining fuel and accidentally added a zero. If that figure was correct then there is absolutely no way the thing could have gotten off the ground. Rounding the Moon is basically the same as rounding a corner in a car at high speed. Just as you must apply the brakes while coming down a hill to round a sharp curve, the service engine must deaccelerate the space craft as they zipped down the Moon's gravity hill in order to make the turn around the Moon.

Well these men had "The Right Stuff, and had already begun to implement their sensible retreat to the LEM while mission control was still dithering and blathering."²⁰ Mission control finally agreed to allow them to use the LEM's decent engine to enter a lunar orbit and again to blast for Earth. This also meant that any necessary mid-course corrections would also depend solely on the LEM's 9 tons of fuel. Adding to the equation is the fact that, in addition to the 20 or so tons of unburned fuel in the service vehicle there would be an additional 15,400 pounds of LEM, plus its 9 tons of fuel plus 33,000 lbs for the service vehicle. That's over 100,000 pounds.

When the service engine performs the same job, Aldrin, says the lunar orbit burn takes 6 minutes.²¹ Then Aldrin reports that, to send the craft back to Earth, it took a 2.5 minute burn which consumed 5-tons of fuel.²² This is a rate of 2 tons per minute and indicates that the lunar orbit burn consumed 12 tons of fuel. Please bear in mind that the service engine has no throttle. It's either all on or all off. When operating, the engine consumes the maximum fuel per minute. This leaves us with the unalterable fact that 17 tons of fuel were needed to do the job, without any later mid-course corrections and without all that extra mass.

And naturally, because of all the extra mass, it would logically have required much more than 5 tons of fuel to accelerate up the Moon's gravity hill for the return to Earth. Still ... the LEM only had 9 tons of fuel.

They didn't even complete the first burn, yet, they were short 3 tons of fuel. NASA would later claim that, "On the first three lunar flights, Apollos 8, 10, and 11, the spacecraft had been programmed so that the final engine burn launched the ship into a "free return trajectory". Once the craft looped around the moon, it would be on the correct course for its return trip to earth. No additional engine firings would be required."²³ This is supposedly a trajectory that doesn't require any lunar deacceleration to round the Moon and return directly to Earth.

I am having a problem with NASA's analysis. To get to the Moon you must travel away from the Earth. If you skim by the Moon you are still going away from the Earth. If your velocity is high you will then go a damn long way past the Moon before you will lose all

²⁰p. 207, Ibid.

²¹p. 233, MEN FROM EARTH, Aldrin & McConnell, 1989, Bantam

²²p. 245, Ibid.

²³p. 263, MOON SHOT, Shepard & Slayton, 1994, Turner Publications

velocity and then be sucked back toward it. Falling back will take as long as going out did. Apollo 13 didn't spend any extra days in space so how the hell did they rub off all that velocity?

Harry Hurt, the author of FOR ALL MANKIND is a most meticulous researcher and the following was in his book which was published in 1988. "The first burn would sling shot the spacecraft around the backside. The second and even more critical burn was the Trans-Earth Injection or TEI, which would blast the spacecraft toward home."²⁴

This is directly contradicted by THE FLIGHT THAT FAILED by Cooper which was written only about the Apollo 13 disaster. Cooper claims that the first burn after the explosion came after they rounded the Moon.²⁵

Without continuing to beat this dead NASA horse, I want to ask why the service vehicle was launched carrying 57,074 pounds of fuel if 9 tons could have done the entire job with the exception of some mid-course corrections? And, while it was pushing an extra 40 tons or so! At a lift ratio of 18 lbs of fuel needed to send 1 lb of container to the Moon, they could have reduced the weight of the entire launch vessel by over a million pounds on each mission. The press has an acronym for NASA which is "Never A Straight Answer". Do you wonder why?

GOTCHA, NASA!

²⁴p. 210, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

²⁵p. 69, 13: The Flight That Failed, Cooper, 1973, Dial Press

18 THE CONCLUSION

I have waved red flags of facts in front of you, and I know it may cause some to seek reassurance from accepted establishment experts. Such folks, not really wanting to believe all this, will want to accept the reassuring pooh-pooh's and tut-tut's in place of hard facts, logic, photos and their own common sense. If there are more people who accept NASA's truths than those who can tweak their own EBS and face the real truth, our country will surely be destroyed. Today, it is already stressed out from too much debt, social division, lack of work (especially for our blue collar people), immigration, incredible taxes, and a failing infrastructure. Today, leaders slough off the debt burden and lay it on our children, and their simplistic solution is to raise taxes on a people already as highly taxed as any in history. Remember your true tax rate is not what government experts tell you it is, it is the number of days you must work each year to pay all your taxes, all your fines and all your licenses. That takes, at least, until August each year, although the Government admits to mid-May. That is an effective tax rate of over 60 %, and it's guaranteed to climb still higher.

For over fifty years our leaders have taken all the golden eggs that the American goose has produced, taking them as fast as they could be laid. Unfortunately they have wasted most of these resources by spending them on foreign adventures and misadventures. And naturally, when nefarious things are being done, some golden eggs will always slide sideways into private nests.

Now our fearless leaders are greedily grasping for the seeds of those eggs, long before they are ready to be laid. By these actions they are literally ripping the guts from the golden goose. Our national creditors will soon demand their money and I can't fault them for that! When you borrow, you owe! (When I wrote this in 1992, I was unaware that the FED was a private corporation.)

When our venal leaders embarked on this path only an occasional lone voice bayed in dissent. The great majority of us unfortunately did nothing to stop them. If we continue to do nothing and let the government and its academic cohorts con us again we will merit the results and prove true the adage, "A people deserve the government they get." It's true that a democracy carries the seeds of its own destruction; but it also carries the seeds of its salvation. That's the point here. We must wake up to the facts presented here, and prevent them from happening again!

In this "free" country, with constitutional guarantees of "free" speech and press, between "SLAP" lawsuits (lawsuits simply to destroy), "political correctness" and all the other restrictions, there doesn't seem to be much freedom left anymore.

Is there anyone left who will cry out, "I completely disagree with what you are saying, but will fight to the death for your right to say it." Be careful America, for whatsoever you do to the least of your fellow citizens, so will eventually be done to you by governmental machine guns, bayonets and fire. Consider the recent wholesale roasting of men, women and children in Waco, Texas. Remember, they also burned the Patty Hearst's Symbionese Liberation Army in Los Angeles many years ago and an outfit called MOVE (dissidents in Philadelphia). That's three for three. Dissidents beware — we can be burned alive. Then in Oklahoma City they claim an exterior explosion imploded reinforced concrete. And recently the World Trade Center was also imploded by a fires in steel buildings. The lies expand!

Today we are a country drowning in short-term debt. Some small portion of this is owed to other nationals like the Japanese and the Arabs. The largest (by far) percentage is owed to the Rothschilds and their cohorts, the Rockefellers, Warburgs, and Schiffs. When I wrote this book I knew not of the Rothschilds. Our economy is in chaos because greedy MBAs, chattering like insane monkeys about the bottom line, have shipped our manufacturing industries out of the country while our great pollution experts created ever more restrictive policies and higher fines for those industries that are left. What's even worse, they pointedly ignore the fact that our local, state and Federal governments pollute more than all the others put together.

In too many communities today only minimum-wage service jobs are left for blue collar workers, male or female. Many of our people cannot handle the servile attitude expected for most service jobs. This has left us with a decaying tax base: requiring ever increasing taxes from the only segments of our population who have ever paid real taxes, the poor and the middle class.

In addition, while the number of our homeless citizens and those in extreme need passes 5 million our social systems and our infrastructure has been overwhelmed by almost unrestricted, and largely secret, immigration from growing populations of third world countries. Too many of them are illiterate, ignorant, and fanatically religious. In the 1960 our leaders told us to cut our birth rate. And we did. But, to solve the overpopulation nightmares of other countries we have deliberately opened our gates. By some particularly twisted logic we now give aliens our Social Security and SSI Disability and they never paid a dime into our system. Thank you UN.

Since 1950, the bean counters at the census bureau have failed to reflect any of this. They have only counted white Americans (with any accuracy). The cause is partly stupidity and partly political correctness. This is an equation for disaster and day by day, our leaders trade off our Constitutional liberties for their own security. During the spring, summer and

fall of 1994 our military was being trained for search and seizure (for the first time in our history). Huge civilian control concentration-type camps are also being created on military bases by FEMA (Federal Emergency Management Administration. Many of those FEMA camps have zero facilities; only razor wire and guard towers surrounding open fields. These are not concentration camps — they are death fields. Concentration camps have roads, barracks, commissaries, etc.

To top that off many of our troops are training under foreign officers and our officers are training foreign troops, all this while the UN is stockpiling tanks, trucks and armored cars around our country. If this is too much to believe read the back issues of the Washington, DC paper "The Spotlight". (This paper was finally sued out of existence!) It doesn't take a rocket scientist to see our nation is in a very precarious state.

When NASA raids our treasury again we will be forced to default on our debt and in that instant of default we will be reduced to peonage. America is the only altruistic country in the history of man, but our generosity has laid us open to creditors who will take their pound of flesh. They will follow precedent and ask for territory to meet the unpaid interest. Remember, Russia sold Alaska to us and France sold the Louisiana Territory to us because they needed money. We will have to fight to keep our nation together.

When we had a nation filled with factories manned by skilled blue-collar labor; we had machine shops bulging with tooling and manned by skilled craftsmen. Next time we will have to depend on imports for our arms, munitions and supplies. Next time the tough slum kids, and the even more sturdy farm boys, will have to fight without superior arms and firepower because our imports will be under UN embargo and our major cities will be under martial law enforced by UN troops. This is about the best case scenario I can present. The others are even more horrific.

Then our creditors will have UN backing (they are the UN) as they partition our country! We will have blue-helmeted troops patrolling our streets and doing door to door roundups of the few arms that our government collectors have missed. If we lose, our United States will be forcefully partitioned into ten small countries. One of the "One World" think tanks and the secretive FEMA has us already divided us into ten "Federal" districts (countries) that bypass state lines. I believe we are in preparation for that day. Remember what happened to Russia in the very recent past.

Here's maybe an even worse scenario: next time our blue-collar men and women will repeat the common non-action of citizens of the Roman and Grecian empires which preceded ours. They no longer cared what happened to their government that had so abused them, and they stopped fighting for it. So while we still have the time, spread the word that, "A Funny Thing Happened On Our Way To The Moon" and that they intend to screw us again and again.

Until we truly solve the problems of creating powerful and efficient space engines, and engineer space ships that provide protection for our astronauts from deadly space

radiation; and we build suits that will allow men to actually work in a vacuum, we surely can't go to the Moon. Let alone to Mars.

At the very start of the space debacle, an old warrior tried to warn us. Authors, Young, Silcock & Dunn wrote this. "In Eisenhower's farewell address to the nation, the old soldier uttered a phrase which nothing in his eight White House years had caused the world to expect of him. For seemingly the first time he said something original, dramatic and durable. "In councils of government," he warned, "we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex."¹

Ike neglected to mention the academic, legal and medical cohorts. As far back as 1969 these same three separate authors saw through some of NASA's sham and said so. For instance, of NASA's public relations department: "Its spokesmen are masters of the vocabulary of adventure and scientific discovery conducted for the benefit of all mankind. Ceaseless repetition has ensured for this unconvincing position a triumph over its essential unreality."²

Unfortunately, all these three authors failed to see exactly how unreal everything was. In all fairness however, it should be noted that these authors were English and not as emotionally involved as we Americans. We were happily and faithfully accepting every word uttered by our big daddy in Washington. Me too, I was conned!

These authors continued their commendable dissection of our motives, "If space has produced an image of strength, Vietnam, assassination, ghetto violence and economic injustice have created one of uncertainty and social incompetence. In terms which men can understand as relating to their own lives, American capitalism of the sixties does not have an enviable record. It has created great wealth, and it has sent Americans to the Moon. But around the world, America is despised as much as she is feared, its citizens pitied at least as much as they are envied."³

Again, they also compared the Apollo missions with other historical follies that had broken the backs of the cultures that produced them. "Other societies offer remote instances of massive resources spent on goods of vague utility: Egypt with its pyramids; medieval Europe with its cathedrals towering over the surrounding squalor; the palace of Versailles. But in truth, it is unique in history for a nation to invent and accept a challenge like Apollo, costing so much and promising few material rewards, and then to commit itself publicly to completing it in a time which made no allowance for failure. The moon landing demanded from America, her people and her institutions a combination of qualities never previously seen in the history of any nation."⁴

¹p. 56, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

²p. 94, Ibid.

³p. 290, Ibid.

⁴p. 284, Ibid.

Another writer, Harry Hurt, an American, speaking about the Apollo 8 mission said, "In essence, the mission was a grandiose public relations venture that promised no tangible scientific or technological rewards"⁵ — The same could have been said about all of the Apollo missions.

To their credit, Young, Silcock & Dunn, questioned the sense of further flights even before Apollo 12 cleared its pad. "A decision to go further cannot be convincingly represented as a bid for immediate world prestige or identifiable scientific discovery. Apollo has shown that those objectives, although they be made to attract the support of the mass of men for the enterprise, are in fact chimerical. In sending men to Mars, it will be the act itself which counts, the great instinctual leap."⁶

They continued, "Unadorned by reason or logic, it is the proposition which men must examine as they attempt to determine whether journeys beyond Tranquility are a necessary gratification of their primitive instincts, or an insane distraction from the real work of the world."⁷

I can't even conceive of what they would have had to say, if they had known it was all showbiz and a supreme con job, similar to each of the historical works they named. At least those ancient con artisans built something that lasted, the Pyramids for instance. Our con artists gave us nothing but a snow job, a lot of debt, and a tiny boost to the already blossoming technology which we would have eventually achieved without the incredible expenditures by NASA.

Harry Hurt mistakenly pointed to the PC (personal computer) as a result of the Apollo Program. Nothing could be further from the truth. If that was the case why didn't IBM invent it, particularly since IBM received hundreds of millions of dollars from the government? They were fabricated instead in a garage owned by a non-member of the establishment. The same inventive route applies to both DOS, the operating system, and the floppy drive!

This leads inexorably to a final question. Why didn't the astro-nots capture those dim, fuzzy, hard-to-see stars on film? Even back in the late '60s we had film that could record a flying owl as it snatched a mouse from a dark field at night. Couldn't NASA afford such "dim light" film? The astro-nots believed their own propaganda. Apparently they came to consider themselves "scientists", but if the stars in space really were 'dim and fuzzy', why didn't they recognize this as a great scientific discovery that it should have been?

Science is a quest for facts — and the dispelling of myths and false beliefs so that it can predict results. Since all astronomers, except maybe those that work for NASA, believe that the stars in space are always bright beyond our roiled and dirty atmosphere, and

⁵p. 96, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

⁶p. 295, JOURNEY TO TRANQUILITY, Young, Silcock & Dunn, 1969, Doubleday

⁷p. 296, Ibid.

since most of us believe this to be true, why didn't they dispel this myth? Wouldn't that have been more scientific than collecting rocks and dirt?

Why did they need the Rover? Why? To help them collect 840 pounds of so-called lunar rocks. These rocks cost over 47 million dollars a pound! The excuse offered at the time, was that a few samples would tell us the history of the Moon, Earth and the universe. So they took four Rovers to the Moon. They cost about about \$18 million each, but their weight is never spoken of. Why not? Would airplane and ship loaders wonder about balance? How do you load a heavy ungainly object off-center, as it had to be because of the central rocket engine, and not worry about balance? It is especially a problem on a ship whose center of gravity, once it enters a gravity field, is higher than the center of thrust.

Then there is the touted "Rock of Ages" sought after by the astro-nots who never went; and it was — never found! In 1974 there was a conference in Houston that author Lewis tells us about: "Of the 840 pounds of rocks and soil returned from the Moon by Apollo missions, only 5 percent or 42 pounds have been distributed to investigators in the United States at the time of the Fifth Lunar Science Conference. Only about half of that had been analyzed by that time."⁸ It should come as no surprise that none of the rocks analyzed are any different than those found here on Earth.

Almost twenty years have ticked by, yet we have heard little more about the Moon rocks. The entire Apollo program had been touted as one great scientific adventure. Each mission had certain scientific goals and the astro-nots allegedly spent most of their time in attaining these goals. Hurt explains, "The ALSEP experiments which the Apollo astronauts deployed on the Moon, which transmitted raw data on such phenomena as "moonquakes," "solar winds," and cosmic radiation, had to be shut down in 1978 due to congressional budget cuts."⁹ As far as cosmic and solar radiation is concerned, I feel that NASA caused NOAA (National Oceanic & Atmospheric Administration) to obscure what is already known. That is not science, that is power politics!

In the section entitled, "Mass Murder or Utter Stupidity", we printed the beginning of this next quote by Hurt. Here is the rest: "Although Project Apollo was one of the most extensively documented undertakings in human history, many of the earth's five billion inhabitants still refuse to believe that twelve astronauts really did set foot on the Moon. Exactly how many people cling to this preposterous heresy is unknown because there has never been a world wide opinion poll on the subject. But just as the Flat Earth society in London continue to dispute evidence that the world is round, untold numbers of serious and not-so-serious disbelievers continue to insist that man's first lunar landings were actually a series of government-sponsored Hollywood hoaxes."¹⁰

⁸p. 300, THE VOYAGES OF APOLLO, Lewis, 1974, Quadrangle

⁹p. 304, FOR ALL MANKIND, Hurt, 1988, Atlantic Monthly Press

¹⁰p. 323, Ibid.

Mr. Hurt, I'm convinced all the documented films, sound tracks and rocks were simulated. On the same page as the above quote Hurt tells an anecdote about Julian Scheer. "Shortly after the Apollo 11 and Apollo 12 missions, NASA public affairs officer Julian Scheer mischievously fueled the flames of doubt at the tenth annual meeting of a drinking fraternity known as the Man Will Never Fly Memorial Society. Scheer delighted some two hundred admittedly inebriated members of the society by narrating a film of astronaut training exercises at a terrestrial "moonscape" in Michigan that bore an indistinguishable resemblance to the real lunar landscape.

The purpose of this film is to indicate that you really can fake things on the ground — almost to the point of deception, Scheer informed his audience, devilishly inviting them to 'come to your own decision about whether or not man actually did walk on the moon.'"¹¹ Hurt called it 'mischief, but I see it in a different light. It was either an attack (or revelation) of honesty or an example of consummate arrogance. We probably will never know which.

I have not been able to find a single picture of a space-walking astro-not that didn't show deep wrinkling in the suit's fabric. Where are the bellows, the cables, the stiff tubes and the inner mesh that Collins bragged about? These pictures clearly demonstrate that a balloon effect is not present. This is powerful proof that we never walked on the Moon, or engaged in any such similar activity in space. Pressurized space suits must more closely resemble the Michelin-Man logo, or the balloons floated in the Macy's Thanksgiving Day Parade than any deliberate movement on the part of astro-nots. In addition, any such activity had better be done under the protective shadow of the Van Allen belt — like where the shuttles presently operate.

If this contention is not true, why did the Russians claim that they didn't know how to protect their cosmonauts from space radiation — while we seemed not to have any problems? According to the charts obtained from NOAA, even if our astro-nots were in space during the biggest solar storm of the century, they would have come to no harm. Why did NOAA send me optical data instead of the X-ray data I requested for the years that the Apollo missions were landing on the Moon? Since Apollo capsules didn't carry two meters of shielding mass, why did they suffer no effects from the average number of 274 class C flares and 13 class X flares that occurred while they were in space? We must assume that only godlike men with "The Right Stuff" can survive what would surely kill us lesser mortals.

So far as I can see we will be able to effectively walk in space only after we have created artificial exoskeletons, similar to the shells of crabs and insects. This will require reticulated and articulated suits, similar to those worn by deep sea divers working at extreme depths. The problem is we are stuck in a web of NASA lies. Until we expose them with an airing of the truth we can make no real progress beyond near-Earth space. Remember that a point to point congruency was found between the Collins zero G airplane practice and his alleged Gemini 10 space walk. Why fake a picture, unless to deceive?

¹¹p. 323, Ibid.

To make real progress in getting to the truth means putting the lie to older fictional achievements, and thus, running the risk of opening up a political and social pandora's box. But if, as citizens, we cannot force it open then we are both morally and financially bankrupt.

Indeed, something like a pandora's box already exists for space. Witness the Skylab fiasco which was the direct result of the lies told by NASA and the astro-nots during the so-called Apollo missions. The design engineers either ignored or completely underestimated the magnitude of solar heating in space due to the false concept space is cold.

NASA (twisters of the truth) admit to exterior Sun-side temperatures of 295° F and internal temperatures of 120° F. But I believe they lied again. I believe the internal temperatures were much higher — thus ruining the interior and partially destroying food supplies, equipment and furnishings. According to Collins over 1,000 packaged meals were stored before the launch.¹²

I sincerely doubt that a jury-rigged parasol installed by "Michelin Men" could do all that much to alleviate the problem. One thousand watts doesn't buy much air conditioning, even if you can keep ejecting water into space to cool the ship. I believe that the three Skylab missions, like the Apollo missions, were at least partially faked. However, unlike the Apollo landings which NASA knew in advance were impossible, I believe during Skylab they really tried, but you can't run a scientific project if the information you give out is false or non-existent.

For example, I remember NASA touting one student's experiment. It caught my attention because it involved flying a model airplane in the zero gravity environment inside of Skylab. Since the force diagram for flight has a gravity vector, the academics were betting the model couldn't fly. Only folks like me felt it would, and if we were right the academics would have to come up with new ways of looking at flight.

The day the experiment was supposed to be run I rushed home from work. I spent the next few hours simultaneously, listening to both radio and TV for information about that experiment, but heard nothing. I called my friends and they hadn't heard a thing either. The next day I read all of the area newspapers, yet saw nothing. I have never heard another word about that experiment since. So much for NASA's desire to communicate with us average citizens.

And yes, I did go through the exercise in futility, of writing to NASA and asking for an answer. I'm still waiting. But since its only been 20 years, I guess I'll still have to be patient and wait some more.

Examine again the pictures of Collins' so-called space-walk in the beginning section of this book. I loved his attitude when it came to spending our money. Talking about redesigning the space suits,¹³ which cost over \$400,000 apiece, he says "The fact that this

¹²p. 166, LIFTOFF, Collins, 1988, Grove Press

¹³p. 221, SUITING UP FOR SPACE, Mallan, 1971, John Day Co.

was also an expensive course to follow did not worry me a bit. One nice thing about Apollo was that no one ever told us we were running the price up too high."¹⁴

From Glenn's brief 3 orbit ride in a Mercury capsule through the Gemini missions that orbited for as long as 14 days, only the Gemini 7 capsule reported a cabin temperature of 29° C (83° F) despite air-conditioning.¹⁵ Not one of the Apollo missions report such heat problems during the 8 days each one spent in unrelenting sunlight on their way to, and back from, the Moon? And neither did the Apollo 17's LEM. It sat on the Moon's hot surface in the blazing Sun for 75 hours (3 days) without a sunshade. This would have required all kinds of refrigeration, plus the electrical power to drive it. The only way you can refrigerate in space is to use the explosive cooling of ejected water. Many tons of water would have been required, and the spout of each ejection would have been readily visible.

Even the geo-synchronous satellites which spend 12 hours in the Sun and 12 hours in the shade report no overheating per se. However, I would bet that they were designed to function with internal temperatures high enough to kill astronauts.

How then could Skylab alone have this problem? In fact, NASA went out of its way to make us believe the opposite with its "Space is cold!" nonsense campaign. The only answer to this dilemma is that... Skylab was basically another ten billion dollar hoax. Skylab was supposed to weigh 34.4 tonnes (35.4 million grams), which made it 10 times heavier than the Gemini capsules. This mass (weight) has to approach the combined mass (weight) of the Apollo command and service capsules, which needed Saturn V engines to get them in orbit. (Both the Gemini capsules and the Skylab were orbited with the old Saturn 1B engines which had only 1/10 of the power of the humongous Saturn V engines).

This raises an interesting question about those Saturn Vs. Did each Apollo shot consist of lifting stripped-down and empty Apollo shells into the Florida skies using Saturn 1B engines? Bill Kaysing believes that the Saturn V engines never worked, and now it seems very likely that Skylab's heating problem was just another NASA lie in order to evade doing some of the more difficult scientific experiments whose results couldn't easily be faked.

New information seems to indicate that the NASA lies started with the Gemini 5 capsule. This mission was launched on August 21, 1965. The crew consisted of Gordon Cooper and Pete Conrad who reported that the oxygen pressure had dropped from 800-psi to 120 in their fuel cells during the first two hours because they powered down and had to shut down the air-conditioning so the capsule got cold.

Buzz Aldrin, in RETURN TO EARTH, never got around to explaining why Roy Neal's simple, no-tricks question was such anathema. What exactly is so bothersome about, "Now that almost two years have gone by, why not tell us how it really felt to be on the moon?"

¹⁴p. 134, CARRYING THE FIRE, Collins, 1974, Ballentine Books

¹⁵p. 104, HEROES IN SPACE, Bond, 1987, Basil Blackwell Inc.

Well, it has been almost 24 years, and he still hasn't answered that question other than to talk about depression. I believe his depression is certainly real, but what caused the depression? Why did that question make his throat dry, make him dizzy; even make him cry over it? As noted before I am no psycho-babbler, but it seems to me that only a psychic scar could produce that amount of reaction to an innocuous question. That scar could be the result of consciously living a lie or of drugging and hypnosis. Yes, it's very possible that our federal government would do this. The passing years have shown that the CIA is no better than the Russian KGB, the Iranian Savak, or the Nazi SS. They are simply more successful at their skullduggery than the rest because of their unlimited funding.

Will Aldrin and the rest of the astro-nots die with this lie gnawing a hole in their souls? Probably so, because they and many others committed a crime against the people of the world in general, and America's citizens in particular. They need our forgiveness, but to get it they owe us at least a deathbed confession. After all, by their actions they helped steal 40 billion dollars from the rest of us. By their silence they are compounding the sin.

They have apparently forgotten in their zeal as patriots that we citizens, not the leaders, are the country. I realize they may have had the best of intentions and that patriotism danced in their heads. But, the road to hell is paved with good intentions; skewed slightly from their original premise. The premise of the founders of this country was truth and honesty, but the CIA is a nest of premise-twisting snakes.

NASA's science is an accumulation of fiction piled on top of hard fact. Once the fiction starts the truth gets buried. Case in point: Rocks similar to the "Moon rocks" have been found in Antarctica or was it vice versa? The geologists have been forced to postulate that they were blown to Earth in relatively recent but unobserved meteorite landings or volcanic explosions. My own feeling is that the so-called "moon-rocks" brought back by the Apollo Program, were obtained in Antarctica during the IGY (International Geophysical Year) of 1957. From the few they've been able to examine, geologists haven't yet found anything unique about lunar samples. They're the same as rocks found here on Earth!

To this day the newer astronauts have rarely been interviewed, and none has ever spoken of the brilliance of the stars and planets. NASA instituted this policy. Why? Didn't the original pilots of the early high altitude rocket planes speak of seeing the stars in broad daylight?

And why aren't most of the Apollo astro-nots dying of cancer, leukemia, and/or deficiency diseases? In fact, according to the government's own experts, every man on any of those flights should have caught at least 70,000 rems each day of the trip.

The Moon hoax provided an incredible amount of money, much of which was pilfered by the so-called "intelligence community". Much of the excess money found its way into Vietnam and Laos, but the rest was undoubtedly swag. It crept, on feathery footfalls, into Switzerland where the gnomes of Zurich (Rothschilds' henchmen) guard it well for the spooks who stole it.

This book, no matter the exposure, cannot stop NASA's newest rip off attempt, "Project Outreach." Only an insider can do that. Today, our country cannot absorb a trillion dollar hoax, without the United States defaulting on our debt to our creditor nations. In the court of international last resort, the sale (transfer) of land is the only way to pay off debt by a country when all else fails. Which states do you recommend we cede to Japan, Europe or the Arabs? Where is the patriotism that drove us on all those years ago? Now is the time to become truly patriotic because it is needed more than ever! It is in the power of the original astro-nots to stop NASA now! All it takes are public confessions.

I understand the power of the shadow government, which I have challenged, in writing this book. But I write because I just happened to have been quietly sitting in front of the fan when they threw the blivit. (A blivit is ten pounds of shit in a five pound bag). I realize that if NASA even suspected any astro-not would confess, they would transport them to a federal funny farm before you could blink. I also realize that I have put those same astro-nots on the griddle, but somebody has to "fess up" to save our country.

Let me add here a cautionary word to anyone who finally does decide to "fess up". Tell no one of your plans. Don't discuss them in your car or house, because today the walls literally have ears and all telephones are tapped. Even the mail of possible 'enemies' of the state is read. Think about that, you heroes who may one day become enemies of the state! Trust no priest or minister because many of them historically have always supported the establishment and continue to do so.

Use special care in what you tell any psycho-babbler, since they have a natural propensity toward locking people who tell strange stories in rubber rooms. The only sure way to disseminate a confession to the people is to appear at a small TV station during the evening news-hour and ask for an immediate spot. Make sure it's taped. After that, call the other astro-nots and tell them exactly what you did and your reasons for it.

To Buzz Aldrin, I speak directly: I am reprinting one of the strangest quotations from your book. You were writing about the pin parties that were thrown after an astro-not allegedly ventured into space. You said, "I don't remember any special event at my first pin party except that there was a great deal of joking about my bananas. I do remember my second. Tom Stafford, John Young, and Gene Cernan had flown on Apollo 10, and because of enormous activity and concentration required to get Apollo 11 off to the Moon, their party was postponed. When a lull in our activities after flight permitted a free evening, the crews of Apollo 10 and 11 were given their gold pins.

"The highlight of the evening was a film showing Fred Haise, my back-up on the flight to the Moon, stumbling around on the surface of the Moon until, in desperation, he retreated to the lunar lander which, the moment he stepped on the ladder, tumbled into pieces around him."¹⁶

¹⁶p. 189, RETURN TO EARTH, Aldrin, 1973, Random House

But Buzz, according to NASA's official records Fred Haise never set foot on the Moon! Apollo 13 (his flight) ended when an oxygen tank blew apart in space. Was this just another simulation like the Scheer film? Couldn't you tell the difference between fantasy and reality? Hercules, it's your last chance to direct the river of truth and flush out NASA's Augean stable.

Here's a happy thought — what will the other astro-nots do if one dies, and has made provision to posthumously release a confession? Will they band together and brand the deceased a madman? Suppose they do so, except for just one more maverick? The permutations are endless.

I'm convinced that NASA took us for a an incredibly expensive space ride. I am equally convinced that NASA's new agenda includes space stations on the Moon and a manned trip to Mars. Since they still use the fabric suits and have not found a way to lift a ship into space with 2 meters of shielding these new missions must again be faked. Their current temporary goal is a few billion dollar space station, but no bureaucracy ever lets go of its goals. It must ever entrench itself deeper into the public feeding trough.

Before NASA can restore its credibility here are some of the questions whose answers I would like to receive from —

Never

A

Straight

Answer

18.1 WHY ???

1. The first man in space, Yuri Gagarin, pronounced the stars being "astonishingly brilliant". Our astro-nots reported them as "dim and fuzzy". Was this because of NASA's inability to accurately simulate a starry background?
2. The photo of Collins in the zero-G aircraft was painted over to show him space walking on the Gemini 10 mission. Why was the picture doctored if the mission was for real?
3. The astro-nots reported that the LEM blasted out a deep crater in landing on the Moon. Why have NASA pictures never reflected this?
4. In fact, even the dust was left as shown by the crystal clear footprints under the various LEMs. Why should the Moon dust leave such clear footprints when here on Earth clear prints are always the result of moisture?

5. The original TV pictures were blurry and indistinct. The TV networks were forced to scan a magnified screen instead of piping the pictures directly using coaxial couplers. Why was NASA afraid to let us see the clear pictures?
6. The Sun creates only parallel shadows everywhere. Why did so many NASA Moon-
scape photos have non-parallel shadows?
7. The backgrounds on most of NASA's lunar photos starts after just beyond the subject and shows little detail. Why did NASA use painted backdrops?
8. Stage prop rocks have identifying marks so that they may be correctly positioned for the scene. Why did one of Moon rocks have a capital "C" marked on it?
9. A NASA photo of the Gemini 6A capsule clearly shows a long fiberglass whip antenna mounted on it. How did this antenna survive the tremendous heat of re-entry?
10. Skylab overheated after 3 hours in orbit while it spent 80% of its time exposed to the Sun. Gemini 5 became cold when power was lost, although it spent half its time in the Sun. Apollo 13 began to freeze up when it lost power even though it spent all its time in the Sun. All six of the LEMs spent up to 72 hours in the Sun and they were reported as "too cold to sleep in". Why do these discrepancies exist?
11. After a two and a half years I have not received the data on x-ray and proton solar emissions during the Apollo years. Why won't NOAA send me that data?
12. The Russians told astronomer Bernard Lovell that they knew of no way to protect their cosmonauts from radiation after they passed the Van Allen belts. Why did NASA claim that a fabric suit could protect them against lethal flares?
13. A NOAA solar flare expert claims flares are unpredictable. Why did Collins claim a few years earlier that NASA could predict them?
14. An astrophysicist who has worked for NASA writes that it takes 2 meters of shielding to protect against medium solar flares and that heavy ones give out tens of thousands of rem in a few hours. Why didn't the astro-nots on Apollo 14 and 16 die after exposure to this incredible amount of radiation?
15. There was a crotch-to-shoulder zipper on the Apollo space suits. Why was there such little leakage when even a pinhole deflates a tire in quick order?
16. The astro-nots seemed able to bend the joints of their fingers, wrists, knees and elbows at 5.2 psi. Why is a 4 psi boxer's speed bag virtually unbendable here on Earth?
17. Apollo space suits were air-conditioned by the release and consequent explosive freezing of water. This effect should be spectacular with the brilliance of the sun-light reflecting from a myriad of frozen crystals. Why didn't NASA ever film it?

18. During Apollo 11 either Armstrong or Aldrin went gamboling past the LEM. It was the atypical blurry ghost TV picture that we received from that mission. Why could you see the LEM through the astro-not at times?
19. During the flag setup ceremony on Apollo 14 the flag wouldn't stop fluttering. Since there is no wind on the Moon, why didn't they tell us they had a Moonquake at that time?
20. The best TV shot is the takeoff of the Apollo 16 LEM. The camera that recorded the blast-off panned upward to track the capsule. NASA now claims that this camera was controlled from Houston at the end of a longer than two second transmission loop. Who did they leave on the Moon to operate the camera?
21. Without reiterating the list of "Gotchas" I will ask only one question. How will NASA or their apologists explain away the eight "Gotchas"?
22. It is a simple fact that if a single thing is wrong with a photo then it has been faked. I am not a photographer. Why have I been able to find something wrong with almost every NASA photo?

As citizens, you and I must retain our skepticism about "truth" in government. The great iconoclast, Mark Twain, correctly observed: there are liars, damn liars, and then there's Congress! He also noted that some members are undoubtedly among a definable "criminal" class. Nothing has changed. Eternal vigilance is the price of freedom!

Even voting faithfully is not enough to make changes. As documented in the book VOTESCAM — The Stealing of America, year by year our vote is increasingly being modified by electronic and other fraudulent means. It is vital that the majority of us retain an independent point of view. As George Wallace (the then Governor of Alabama and Presidential candidate) said about the two major political parties just before he was shot, "There ain't a dime's worth of difference between them."

We must work at a local level to eliminate voting fraud by demanding that we go back to electronic-free elections. This means paper ballots issued at polling place located, at most, every block or two so that neighbor recognizes neighbor. Then we must all vote and throw out most of the incumbents, regardless of party affiliation. If you agree that NASA must be stopped, then demand that your Congressional representatives force NASA to set the record straight. Phone their offices; bitch, agitate, picket, and gripe. If honesty is to be restored to government, it's up to you and me..

19 The Radiation Addendums

19.1 James Miller

When he was young, James Miller, quickly ran afoul of our "masters" by continuously challenging the status quo just as I did. However he finished college, spent 10 years in the military, and was later trained as a radiation expert. His job was to test both the X-15 rocket plane (extremely high altitude ship) and the B-52 that carried it aloft after they had landed. He consistently found that both ships were "very, very HOT and should have been washed down with special safety equipment. . ." This gear was never made available and he eventually quit that job.

Later still he established a very successful company until he came to the attention of those who "control" us. He was then attacked by their major weapon (our system of "justice"). He did jail time for having contempt (richly deserved) of the courts and the judges who rule them (in defiance of our ancient concept of the jury system).

After examination of the data NOAA sent me the second time, this same man asserts that the modern Imagineers (his name for particle and astro-physicists and astronomers in particular and scientists in general) have replaced the alpha, beta and gamma rays with proton flux (a non radioactive particle). They also only speak of the energy in an x-ray, instead of its radioactivity in rem. This data prompted his tongue in cheek question about how many rem there are in a one thousand ton asteroid or meteor traveling at 50,000 mph.

In his communications, he states simply that NASA has never released any real information about radioactivity in space. I guess NASA believes that if they ignore requests long enough the problem will go away. By law, anyone exposed to radioactivity in any form must wear read-out badges. We want to know why the true astro-nots' badge readings were never released. My friend Jim had a lifetime limit of rem and he only worked around the outside of the X-15 and carrier planes when they returned from high altitude flights. But the astro-nots claim they lived out there for days!

Jim stated that gamma rays are produced when any two particles collide, which agrees with what the astro-physicist Mauldin was saying in his book Prospects for Interstellar Travel. Mauldin stated that the protons create immense amounts of radiation that reflect

in all directions as they interact with other matter; thereby, necessitating either two meters of water shielding or its mass equivalent of other matter must surround all life forms in space.

My friend states that gamma is always created by the break up of atomic nuclei; the very process that causes an atomic reactor to go critical and to start generating heat. The Cherenkov glow is always present in a reactor's water and is caused by these rays. Why has NASA never released this data? They have hidden the truth by telling us that only a neutron can start an atomic chain reaction. In reality, every collision with matter by high velocity protons and x-rays produces radioactivity!

He also predicts that if I ever smoke them out, they will invoke "National Security", proclaim me to be a Whistle Blower, and threaten my termination. So be it. I will then join a long, long list of dead patriots.

James Miller, died in his sleep on New Years night of 1999. He was absolutely sure that because both NASA and NOAA are controlled by our "masters" through the CIA, they will never send me the radiation data (smoking gun) I seek. They never have!

19.2 James A. Van Allen

During the late 1950's, James A. Van Allen, the official discoverer of the Van Allen Belt which is our Earth's solar radiation shield, spent millions of government dollars launching high altitude balloons that when at peak altitude fired rockets into space. Nicknamed Rockoons, they carried Geiger counters because Van Allen, like Tesla 50 years before, also expected to find energetic particles that were dangerous to man.

On page 39 of the March, 1959 issue of Scientific America, Van Allen wrote an article entitled RADIATION BELTS AROUND THE EARTH". The subhead said, Instruments borne aloft by artificial satellites and lunar probes indicate that our planet is encircled by two zones of high-energy particles, against which space travelers will have to be shielded."

In the beginning of his experiments everyone was puzzled because the counts of the onboard Geiger counters would rapidly climb with altitude and then drop abruptly to zero. On a hunch they finally included a second Geiger counter shielded by one millimeter (.042 inch) of lead to reduce the effect of the highest energy particles and shield out most of the slower ones. By this method it was soon determined that the high counts involved 25,000 hits per second with a peak bombardment of 40,000 particles per square centimeter per second. These high counts started at about 15,000 miles out from the equator and continued for another 15,000 miles. It then became obvious that the original Geiger counters had been overwhelmed by "an enormously high level of radiation."

At that time he also stated that at 30 miles above the Earth the Geiger counters became continuously busy. The word continuous is the operative word here! This altitude places both shuttle missions and the Mir space station under continuous influx. They warn us about Radon in our basements but they send people to spend months in this environment.

High altitude radiation is also shown by the fact that when the radiation count reaches 10 millirems (.01 rem), the SST which usually flies a great circle course over the pole at 65,000 feet is ordered to greatly reduce altitude. Should the dosage rise to 100 rem they must also change course away from the polar zone. A space ship going to the Moon will spend about three hours coming and going through these radiation belts. Then it will spend days in space traveling to the Moon and back in the thin hulled LEM and more days sitting under our deadly Sun on the surface of the Moon where there is no ozone, no clouds, no shade and no Van Allen shield. How much radiation is in space? Nasa claims from little to none!

When he wrote the article, Van Allen, suspected that solar emissions were the cause of the radiation, a suspicion later found to be correct. He had this to say, "In this theoretical scheme the radiation belts resemble a leaky bucket, constantly refilled from the sun and draining away into the atmosphere. A particularly large influx of solar particles causes the bucket to "slop over," mainly in the auroral zone, generating visible auroras, magnetic storms and related disturbances."

As early as 1963, NASA engineers and scientists wrote a book entitled "Aeronautical Engineering & Science" where they stated that even minor solar storms would give people 25 rem per hour through a one centimeter thick aluminum hull. Because the metal on the LEM's hulls were less than .002 inches thick, that 25 rem must be much higher. And the metal of the command capsule walls wasn't much thicker than that of the Lem..

From NOAA solar records we find that there were 134,793 visible solar storms of all sizes and powers during the 25 year period from 1967 through 1991. This is an average of 14.77 storms per day. If each of these lasted only an hour (they last much longer), the average total minimum rem per day in space for anything organic that is above the Van Allen Belt, is 369 rem. In 32 short hours all living things except cockroaches, some bacteria and certain viruses would be dying.

This is why John Mauldin (ex-NASA astrophysicist) in his book "Prospects For Interstellar Travel" wrote that "at least 2 meters (6 feet) of solid shielding" is needed to protect "all living organisms". Anything less is suicide! This is what the men of science had to say about radiation in space. NASA's spin doctors claim that men can live after 500 rems and that space has very little radiation.

On June 24, 1996, I received a copy of a letter sent to Bill Kaysing, a writer on the NASA hoax from Apollo "astro-not" (not a typo) James "Liar" Lovell of Apollo 13 fame. He wrote that Bill had a screw loose and he was wasting his life by doubting NASA. About 3

weeks later Liar Lovell was interviewed in Illinois by a California newspaper (Bill's home territory). He went further, calling Bill a "whacko". The fact that he personally sent me a copy of his letter before the article, proved the libel was both malicious and premeditated.

Bill filed a libel suit and the war was on. I joined the fight to handle the space technology. On our first interrogatory we asked if Liar Lovell had ever heard of me. Lovell committed perjury by denying this. I then sent him two technical interrogatories and held the best for the last. The jury trial date was October 3, 1997, and late that August, I fired that one off. Knowing that he had to stay within NASA's "party line", I designed the questions accordingly.

In response to one question which asked for his official radiation exposure for his two trips to the Moon, he answered, ".4 rem", which is 400 millirem. The time required to pass through this belt is over an hour each way. He spent at least six hours in transit and according to Van Allen, his exposure had to range between 60 and 240 rem. And that was just getting this human guinea pig through the Van Allen shield.

Then Liar Lovell's attorney, probably fearing the jury, raced to the judge and asked for a summary judgement. For reasons unknown, Bill didn't present my tight four page rebuttal which consisted of copies of Liar Lovell's letter to me and its envelope, the fact that he denied knowing me and also the evidence showing deep contradiction between his reported dosage and Van Allen's work on radiation. Instead, Bill handed in 22 pages of dribble. The summary was granted!

Which brings us to the fact that, by Lovell's own admission, if he actually went to the Moon then he was a human guinea pig. He was supposed to be on the first flight to go through the shield. There are no records of any flight ever sent through the shield carrying mammals. When Lovell was asked to provide me (Kaysing) with information of any such flight he claimed he didn't know of any. Would you send human guinea pigs, especially men with the right stuff, into a region which your instruments had pronounced to be a radioactive hell before you sent in monkeys or apes? No? Then why would NASA?

19.3 Dr. Frank Greening

Since I first started the research that led to this book, I have been searching for absolute proof that James Van Allen's original research, on what was to be called the Van Allen Belts, was correct. He found radiation that sent his Geiger counters off scale, radiation high enough to be lethal to humans who passed through.

After almost a decade of searching (chronicled in this book) Dr. Frank Greening of Ontario, Canada has shared his work with me by giving me some of the following research and the radiation values of the Van Allen Belts. As usual, opinions are mine!

As you read this, bear in mind that even the government agrees that a maximum life-time dose is 25 rads and that death always begins after 500 rads. In addition, this information has also allowed me to safely conjecture about the radiation in the region of space past the Belts and between Earth and the Moon.

From the pages of an article "Radiation Protection During Space Flight" which was found in the 1983 "Journal of Aviation, Space and Environmental Medicine", Dr. Greening, extracted this statement "Dose equivalent rate from electrons in the heart of the Van Allen Belt is 280,000 rad per day." Dividing by the seconds in a day we find 3.2 rads per second. The only unanswered question here is, "How wide is the heart?"

From the McGraw-Hill "Encyclopedia of Science & Technology, Vol. 19, pages 163–167, I found additional information and scale sketches of the Belts which are basically composed of an inner ring and an outer ring. The inner ring, which starts at about 4,500 miles out and extends to 6,400 miles, is much more active than the outer ring. Judging by the shading of the drawing which shows relative intensity of flux, 1900 miles of this ring, about half (950 miles) should be considered the "heart"!

The 3.2 rads/sec doesn't sound like much until you realize that eight seconds gives a life time maximum dose and in less than two minutes, a death sentence. Because a return trip is involved, it leaves us with a minimum travel time of three minutes. At a ship speed of 11 km/sec (6.8 miles/sec), you would be dying upon reentry whether outer space contains radiation or is as radiation free as NASA claims it is.

Since the "heart" of the Belt is 950 miles wide anyone claiming to have made the trip twice would have traveled 3800 miles in the "heart" of the Belt which would have taken 588 seconds for a total exposure of 1790 rads. Broiled astro-not anyone? Oops! Liar Lovell (Apollo 8 and Apollo 13) just received three absolutely fatal dosages in two short years.

He was still very much alive in Sept. 1997 when Bill Kaysing sued him for libel. This is only one of the reasons why I call him Liar Lovell. Any Apollo astro-not who claims to have gone through the shield is a liar.

Before we enter the next section, bear in mind that the radiation dosage formula is $Q \times \text{number of rads}$. Q ranges from 1 for the lower powered particles encountered in the belts, to 10 for the highest powered particles encountered during tremendous solar storms in space. A Q of one shows that even the low level particles must contribute radioactivity and induce damage to life forms otherwise Q should start at zero.

In a prior related article Dr. Greening examines the results of "Operation Argus", a secret U.S. Military experiment of 1958 in which a number of atomic bombs were fired on the edges of space shortly after the discovery of the Van Allen Belts.

Argus I, a 1.7 kiloton blast, on Aug. 27, at an altitude of 160 km. Argus II and Argus III, fired on Aug. 30 and Sept. 6, were also low yield blasts. Argus was succeeded by Project

Starfish in 1962. On July 9th, some 4,000 km. above the Earth a 1.45 megaton bomb was fired. It created a new Van Allen Belt having a radiation of 45 rads/sec. It had been theorized that the new belt would decay in a matter of months but in reality, it persisted for a decade. Any astro-not claiming to have passed through would have also run into whatever of this radiation was left from the Starfish blasts.

Over 30 years have passed since Liar Lovell "Mooned" us and to this day not a single astro-not has ever spoke of the brilliance of the stars nor taken photos of them. If the recent copies I received from NASA of the three color photos used in this book are any indication, by now, NASA does have proper photos of the stars. The "C" rock is now unmarked, the size of an 8 x 10 has been reduced to 6 x 5 and the optical quality has been greatly reduced. In a world of digital photos anything becomes possible.

By the same token, NASA's position on space radiation has never wavered. They claim that there is no harmful electro-flux in the great beyond except during that once in a century tremendous flare. They deny Van Allen's leaky bucket description because he believed that it was mainly the Sun that was responsible for the trapped radiation.

However, the Argus experiment proved that radiation can be added from sources exterior to the belts and then be scrubbed away by natural process. Unless the scrubbing is magically limited only to bomb blast radiation, the natural belt must also be decaying at a similar rate. If the artificial radiation took a decade to disappear isn't that a decay rate of approximately 10%? Am I wrong to conclude that at least, 10 % of 3.2 rads/sec must be continuously added?

There would soon be no natural radiation in these Belts unless it was constantly being renewed by something. Since there is nothing between the Sun and us I must assume, just like Van Allen before me, that most of this radiation is created by the Sun. The stars, because of their distance, can only contribute occasional high powered cosmic ray. If all stars are driven by similar process, I will predict right now that the ratio of solar to stellar will be at least 500 to 1 in favor of the Sun!

Consider Apollo 17, which at 12 days long was the longest flight made. There are over one million seconds in 12 days. At .32 rads/sec the total exposure for each astro-not would be 320,000 rads. A one year trip to Mars anyone?

The solar wind is composed of high velocity protons and electrons which were ejected from the Sun's flares. Slashing through this are occasional heavy doses of X-rays whenever there are large flares. Protons will also create radioactive damage. Since the only difference in flares seem to be their size, the little ones must also create radiation? If so, why are we not being told.

As discussed earlier in this book, we must also remember that even medium solar flares can produce thousands of rads per second with Q factors pushing 10.

Let us consider a reservoir that always contains 100,000,000 gallons despite use. Would anyone dare claim that the input from all sources isn't at least that much over the same time frame? No matter how we look at it, space must be a deadly sea of radiation that no suit and thin hull combination, no matter the materials used, can defeat. John Mauldin wrote that two meters (6 feet) of water was necessary and he wasn't kidding!

There is a complete lack of data on flights that carried life forms through the shield prior to Apollo 8 and its cargo of three great apes. However, if you search NASA biology on the Internet, then grab NASA Life Sciences Data Archive, then grab OVERVIEWS, then grab Unmanned Missions you will see 8 biology flights listed. Unfortunately, for NASA, this data absolutely proves my thesis that Liar Lovell (and his crew) had to be the first life forms to go through the shield. Another strange fact is that the flight data isn't listed. That guarantees that all were under the Van Allen Belts. The first flight listed is Bion 3 and it lifted on Nov. 25, 1975. This is over 6 years after Apollo 8 mission. I think that this really lets the "Moon cat" out of the space sack! Now some genius at Stanford, Martin Walt, speaks of "perturbing our reservoir" (the Belts) by blasting off more high powered A-bombs in space so that we can determine exactly how the radiation input and output relate. A much safer, cheaper and easier way would be to orbit a satellite just past the shield and measure the radiation coming toward Earth. This would also tell us the exact ratio of solar to stellar radiation.

Not only would we have proof positive instead of what is now just theoretical bull shit, we would also not have added to the world's radiation problem.

Found in the text of McGraw-Hill's pages is a statement to the effect that intense precipitation of electrons and protons reduces our ozone layer. Can it be that the Alaskan "HARPP" project which injects tens of millions of watts daily (enough to solve California's on going power problem) into and through our ionosphere is helping to destroy the ozone layer by manipulating the Polar Wind for climate control?

At the turn of the century, before we made the bomb, and before we ruined both our food and our water with radioactive particles, chemicals and pollutants, only about 2 % of our people died from cancer. Today, that number is over 60%.

If volcanoes can and do layer the planet with their dust after every big eruption, it doesn't take an atomic physicist to see that space bombs must also distribute their radioactive wastes all over the planet. In that case, Martin Walt, spare the bombs and spoil the cancer!

20 THE MARS LANDING ADDENDUM

The Great Martian Landings began August 20, 1975 with the Viking 1 probe when it was launched toward Mars. Previous probes had established that Mars had no magnetic field nor any Van Allan type solar radiation shield. It was also known to have a very thin atmosphere, 97 % of which is carbon dioxide. My Chemistry & Physics Handbook shows the Martian surface pressure to be only .006 that of Earth and this is virtually a vacuum! With no magnetic field, no Van Allan shield, and with no thick atmosphere, the Martian surface identical to space is ravaged by every solar flare that burps from the Sun. Not only can the larger flares produce hundreds of thousands of rem in a few short hours, but many times their particles are thousands of times as powerful as those found inside the pit of an atomic power plant.

In this book I used the NOAA (National Oceanic & Atmospheric Administration) solar records to show that there were 134,793 flares during the 25 year period from January 1967 to January 1991. This gives us 300 months, with a monthly average of 449 flares a month. Of these, John McKinnon, NOAA's own solar flare expert writes, "Probabilities of the order of 1% are considered low with respect to class X flares."¹ Imagine that? NASA is searching for life on a surface that is scoured 1.5 times a day by X rated flares. Sure it is!

NASA as usual, misdirects us by claiming that the Martian surface pressure is less than 1 % than that of the Earth. In actuality, it is less than one tenth of 1 % of the surface pressure of Earth. The Martian pressure is equivalent to Earth pressure at about 37 km or about 120,000 feet which is higher than most clouds and almost as high as a huge balloon can go when carrying a few pounds of instruments. There is simply not enough matter at that pressure to provide any real lift. If the air can't lift then it can't be used to billow out a parachute. Any chute deployed at this altitude here on Earth would stream and once it streams it never fills. Therefore, parachutes on Earth are limited to much lower altitudes.

On July 14, 1976 the orbiter modual which weighed 5,125 pounds detached its lander. I can find no listed weight in my encyclopedia on space but since it could carry carry up to 638 pounds of fuel in addition to its payload that lander had to weigh at least 1000 pounds.

NASA claims that after the lander was detached rockets were used to slow it down to 560 mph at an altitude of 800,000 feet. Then it was allowed to fall 781,000 feet under

¹NOAA TECHNICAL MEMORANDUM, ERL-22, McKinnon, Dec, 1972, Dept of Commerce

Martian gravity before a parachute was deployed at 19,000 feet. At 4,600 feet this chute was detached and NASA tells us that it then had a velocity of 145 mph. Rocket engines under computer control then landed it.

Martian gravity is about .37 that of Earth. Earth's gravity accelerates an object at 32 feet per second. This gives Mars the ability to accelerate an object at 11.84 feet per second. The 560 miles an hour horizontal motion will not affect the downward velocity of an object that falls 781,000 feet on Mars.

The terminal velocity at the time the chute was deployed was about 4,300 feet per second (which is almost 3,000 mph.) That's much faster than a speeding bullet. NASA claims that in a matter of 14,400 feet that chute operating under near vacuum conditions reduced the lander's speed to 145 mph. Sure it did! That was then; let's look at now.

The next probe to land on Mars did so on July 4, 1997. NASA tells us that the "Pathfinder" came in at 16,600 mph and was then jettisoned to boldly plunge into the fringes of the Martian atmosphere without using retrorockets to enter orbit. As usual, there were two different histories given by NASA. The first states that by some miracle during the next minute its speed was reduced to 1,000 mph.² The second states that it was jettisoned at 5,300 miles and its speed was reduced in 30 minutes while it fell to 80 miles.³ In the first case the de-acceleration would have been incredible. However, in the second case the Pathfinder would be at the 80 mile high place still doing 4,280 mph. The NASA story gels murky, but it is assumed the Pathfinder was again allowed to free fall until it was 7 miles high when NASA claims the parachute opened. Instead of streaming because it had been popped in almost a vacuum, it billowed forth and slowed the Pathfinder down. "When it was one mile up it dropped the chute, blew up the airbag, and fired retrorockets reducing its speed to 23 mph. Then the air bag hit the ground, rocks included and bounced either 3 times⁴ or 16 times⁴."

Then the roving Martian machine's Earth Master, Michael Malin, who works for Space Science Systems, Inc. was able to watch its images for a continuous 24 hours.⁵ Since all space transmissions are done by line-of-sight frequencies, and because both planets rotate, this is patently impossible. The only way this could happen is if they dropped off at least three geo-stationary satellites above the Martian equator before they landed the Pathfinder. I think the NASA liars decided that this could happen because both planets have days of nearly equal length. Take two circles of paper and put a dot on each nearest each other. Then rotate each paper 180 degrees (12 hours worth) and you will instantly see that each dot is hidden by its planet from the other dot.

I guess in some similar manner NASA intends to bounce astronauts down to the surface of Mars sometime in the future, where they will once again gambol amongst the Martian

²New York Times 7/4/97

³New York Times 7/5/97

⁴Science News 7/12/97

⁵Science 7/11/97

life-forms that I'm sure the Pathfinder will soon find. That discovery will make it our duty to bounce down there and meet with these aliens so that we can invite them to our home to visit us.

NASA's appropriation was in committee and being discussed at the time of this perfect July 4th landing. You don't suppose ...? Nah!

I tried hard to believe that only the Gemini missions and the Apollo manned landings were a hoax and that all the rest of their exploits were true. Nagging at me was always the question, "When can you trust a known liar?" Now, I must believe that the answer to that question is never! The next time the Imagineers tell us they found Martian rocks, bear in mind that if they have nothing to compare them with how do they ever figure that out? It is axiomatic, if you can't land, you can't retrieve.

21 THE PRESS KIT ADDENDUM

This addendum was extracted from a NASA document originally issued as a press kit on Sunday, July 6, 1969. The release number is 69-83K. Twenty years later it was reissued as a "Souvenir Edition" on the twentieth anniversary of the Apollo 11 Moon landing. The title is "APOLLO LUNAR LANDING MISSION".

21.1 The Cold In Space

1. Nowhere in this full size 250 page document is there any worry or provision made for the cold of space. However, it does have statements about the arrangements made to counteract heat build-up. The first is found on page 15.

"During the trans-earth coast period, Apollo 11 will again control solar heat-loads by using the passive thermal control "Barbeque" technique".

2. On page 104 we find this statement, "The primary coolant loop circulates water-glycol for temperature control of cabin and suit..., batteries (silver zinc), and electronic components ..."
3. On page 154 we are told that during the long lunar nights that the temperature drops as low as -279°F and that the seismometer needed an auxiliary heat source to keep it no lower than -65°F . This worked out to two heaters with an output of 15 watts apiece. Each heater used 1.2 ounces of plutonium 238 and the exploded drawing showed no way to turn it off. If this much heat was needed to keep the unit 200°F hotter than the outside during the lunar night, why shouldn't that same amount of heat have added 200°F to the unit during the daytime? The Moon's mid-day surface temperature is 243°F and that unit should have been well over 450°F at midday. Try baking the guts of your radio in a 450°F oven for a few hours sometime!

21.2 The Photo Equipment

1. On page 79 NASA lists all the photographic equipment and accessories carried on the LEM. There are no flash units listed. On page 80 we find that the close-up fixed

focus camera did indeed have a flash, but it was only used for taking special stereo photos of the surface.

21.3 The Space Suit

1. On page 117 NASA claims that the space suits were pressured at 3.9 psi with pure oxygen. I have great reservations that a human can remain active for a sustained period at this pressure. Then they tell about a full body, pressure bladder that overlays a nonex comfort layer. That's great for the body, but what about the hands, feet and head? Did they make little pressure bladders for them? If not, how did they seal the extremities; especially the neck, not to mention the hands, feet or head? Let's face it, a pressure band around any part of the body is called a tourniquet.

A wrist watch even compresses the skin a bit. Squeezing some part of the body, while a total vacuum sucks at the others, should quickly cause trouble to any organism. I defy NASA to demonstrate the pressure bladder at 18.6 psi (3.9 psi positive) on a live TV show. Since you can't trust a known liar. I will provide the brand new, s till sealed in boxes pressure guages to stop them from using an ounce or two of pressure and calling it 3.9 psi.

21.4 Real Time Commands

1. This is found on page 105. "Although no real time commands can be sent to LM-5 and subsequent spacecraft, the ..." But according to Harry Hurt on the bottom of p. 70 in this book, it was ground based radar doing that work in real time. In the the fourth paragraph on the very next page, you can see that NASA sure had authors Murray & Cox fooled!
2. On page 105 of the Press Kit, NASA also claimed that the landing radar provides altitude and velocity data to the LM's guidance computer. I know that on-board radar can gauge altitude, however, how can it clock the velocity? Velocity is the rate at which you change your position. To do that you need a ground-based reference point, and to acquire these on the Moon would have called for a special mission to land a number of probes on the Moon beforehand. The only reference points they could have had were here on Earth, 240,000 miles away!

22 THE SHADOW KNOWS ADDENDUM

In October 1995, Joe Nieroski sent me a letter suggesting I examine the Apollo photos for shadow lengths that did not show the Sun's true elevation according to date, time and position. I misplaced the letter. Four months later Ray Labonski had an idea that the terminator line (day/ night division) on the Moon might let him determine whether shots of the Earth taken from the Moon were phony. That's when I had my "brain storm"! I decided to examine the Moon photos for shadows the Sun couldn't have made because of date, time and position. Using spherical trig I could calculate the Sun's elevation above the lunar horizon to determine whether the shadow lengths for a given object were too short or too long for the time frame of when the astro-nots were supposed to be gamboling on the Moon. All I had to do was renew my spherical trig and celestial navigation skills.

My knowledge of spherical trig began when the onset of arthritis brought my very active lifestyle to a screaming halt. To keep my sanity, I began to design a 50 foot sport fishing boat using semi-submersible hulls. The design was so promising that I knew that a boat of this type (if specially fitted) could easily break the self-contained small boat transatlantic speed record. Since a speed record was dependent upon staying on great circle routes, I began to study celestial navigation and discovered that conventional navigation was difficult to learn by my usual do-it-yourself methods.

Navigation by non-electronic means requires an accurate time piece, a sextant, a current "Nautical Almanac", local charts and the purchase (each year) of a number of books filled with tables. These tables are solutions to tens of thousands of spherical triangles, all calculated by the use of spherical trig. Determined to learn spherical trig I took a batch of applicable math books home from the library and again encountered difficulty. The pace of the do-it-yourself method is usually slow because text books are written by people more interested in impressing their peers than teaching their readers. I was on the last batch of books the library owned (still hopelessly entangled) when one author made a fatal error. He compared spherical trig with plane trig and mentioned that both are based on the relationship between the sides and the included angle. The veil lifted and in the next 10 seconds, I became a spherical "trignominist".

During that period of pain, I also invented the Inversa-sphere which is a mechanical method of celestial navigation utilizing the inside of a hemisphere that contains latitudinal and longitudinal grids. The concave surface allows smaller compasses to give the same accuracy obtained by working on a larger sphere when drawing the navigation LOP's

(Lines of Position), as shown in chapter 7. By inspiration, one day I also developed a new navigational system that eliminated the necessity of buying the books of tables each year. My method only required a sextant, clock, Nautical Almanac and a scientific calculator to determine a geographical position using spherical trig.

I went to the local library to review spherical trig and copied the formulas necessary to calculate the Sun's elevation for each of the alleged Moon landings and lift-offs. The exact time of new moon for each of the Apollo missions determined the amount of the Moon's rotation from that time until the Lunar landings and take-offs were made. Since mission time was reckoned from the instant of lift-off from Earth, I also needed accurate times of lift-off and the lunar latitude and longitude of the various landing sites. At my local library I found discrepancies.

The Newark Library beckoned, and, following its siren call, I discovered that their books contained similar discrepancies in sites and times. NASA, which has always assured us that it knew within a few yards where everything was, couldn't keep proper time or record the sites exactly! There were two missions for which exact time was not supplied, but I was able to calculate it within a few hours. I wrote to NASA to see what it had to say about discrepancies, but I expect zero help from that direction. If NASA stays true to form it will never answer. In the meantime, I used the locations and times I have available.

The unanswered question is why is this data not accurately listed in technical space encyclopedias? Accurate astronomical data on the time of the new moon for each mission was found in the appropriate "Nautical Almanacs". The Handbook of Chemistry & Physics gave me the inclination of both the Moon's polar axis and its orbit. The polar tilt is 1.537°; and the orbital inclination is 5.12° to the ecliptic. Also given is the period of rotation which was 2,360,550 seconds or 27.32 days. This gives a lunar rotation of 13.176 ° per day.

The last two items in the first line of the mission data chart show the elapsed hours from the blast off from Earth to the Moon landing, and the Moon lift-off. The second line shows the date and time of the preceding new moon and then the days and hours to the landing and blast-off. The third line shows the total days and hours from new moon to the start time. The fourth line has the total hours from new moon to both Moon landing and Moon lift off. The fifth line shows the total hours of rotation since the new moon.

APOLLO 11 – MISSION DATA				
	Site	Start Time	On Moon	Off Moon
Apollo 11	01°N - 23°E	07/16/69 - 1300	+100 hrs	+124 hrs
New Moon	*	07/14/69 - 0500	04-04	05-04
Days & Hours	*	02-08	02-08	02-08
Total Days	*	*	06-12	07-12
Rotation	*	*	06.5	07.5

APOLLO 12 – MISSION DATA				
	Site	Start Time	On Moon	Off Moon
Apollo 12	03°S - 24°W	10/14/69 - 1600	+110 hrs	+142 hrs
New Moon	*	10/09/69 - 0500	04-14	05-22
Days & Hours	*	05-10	05-10	05-10
Total Days	*	*	10-00	11-08
Rotation	*	*	10.0	11.3

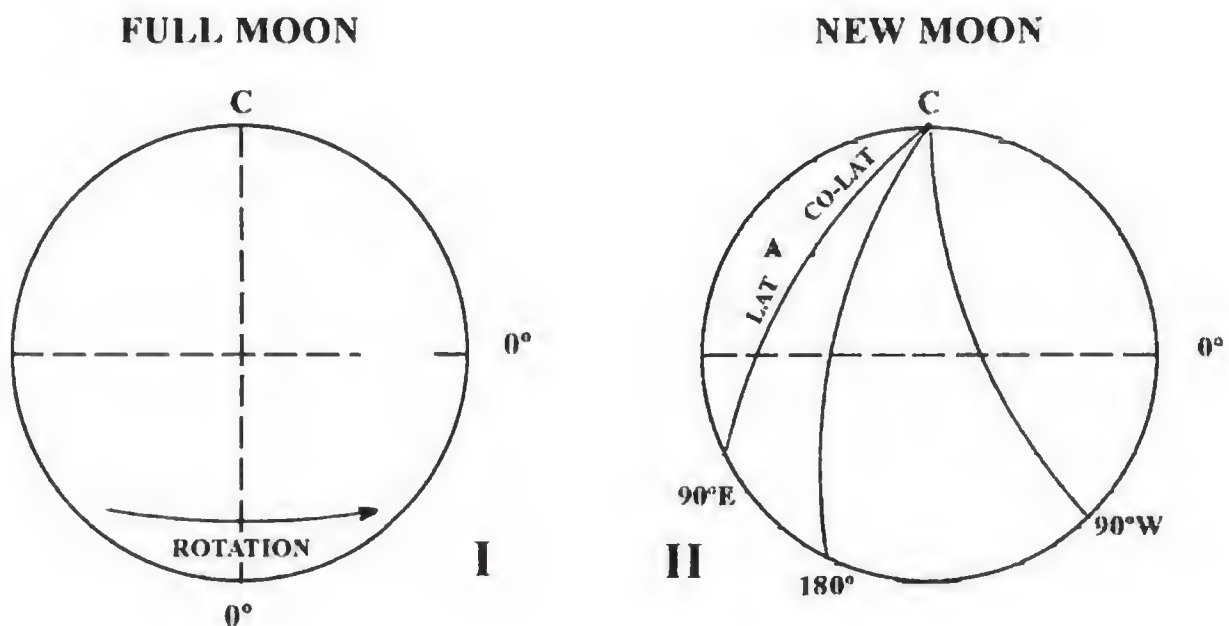
APOLLO 14 – MISSION DATA				
	Site	Start Time	On Moon	Off Moon
Apollo 14	05°S - 15°W	01/31/71 - 2100	+108 hrs	+142 hrs
New Moon	*	01/26/71 - 0900	04-12	05-22
Days & Hours	*	05-12	05-12	05-12
Total Days	*	*	10-00	11-10
Rotation	*	*	10.0	11.4

APOLLO 15 – MISSION DATA				
	Site	Start Time	On Moon	Off Moon
Apollo 15	05°N - 02°E	07/26/71 - 1300	+104 hrs	+171 hrs
New Moon	*	07/22/71 - 0800	04-08	07-03
Days & Hours	*	04-05	04-05	04-05
Total Days	*	*	08-13	11-08
Rotation	*	*	08.5	11.3

APOLLO 16 – MISSION DATA				
	Site	Start Time	On Moon	Off Moon
Apollo 16	09°S - 15°E	04/16/72 - 1800	+104 hrs	+175 hrs
New Moon	*	04/13/72 - 0100	04-08	07-07
Days & Hours	*	03-17	03-17	03-17
Total Days	*	*	08-01	11-00
Rotation	*	*	08.0	11.0

APOLLO 17 – MISSION DATA				
	Site	Start Time	On Moon	Off Moon
Apollo 17	20°N - 31°E	12/07/72 - 0500	+110 hrs	+185 hrs
New Moon	*	12/05/72 - 0300	04-14	07-17
Days & Hours	*	02-02	02-02	02-02
Total Days	*	*	06-16	09-19
Rotation	*	*	06.5	09.7

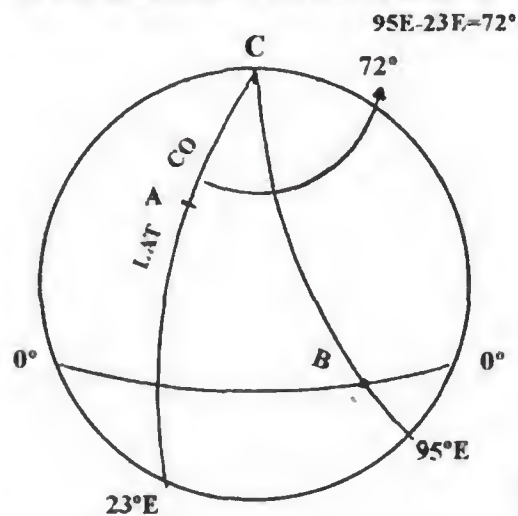
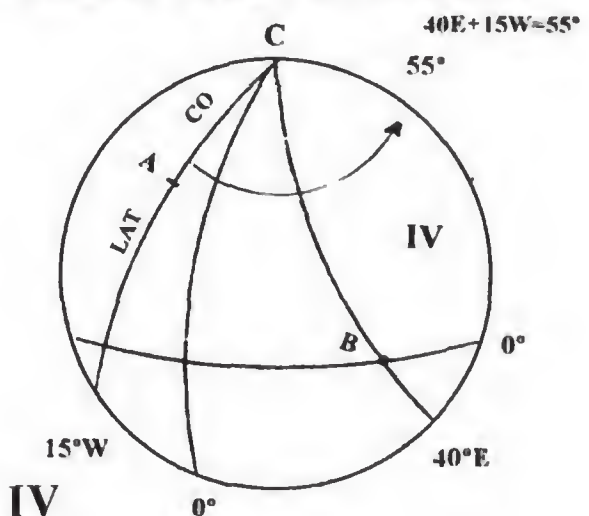
Sketch # I shows the full Moon. The exact middle of the face we see is zero longitude and always faces toward Earth. Therefore, the 180th longitude must be facing the Sun at the instant of new moon. Sketch # II shows the rear side when the Moon is new. Point C represents the pole of rotation. This sketch is a schematic that shows the impossible because the spread of longitude is 180° apart. Point A represents a landing site. Notice that there are two labels on that line of longitude. One is LAT, which stands for the latitude or the angular measurement from the equator. The other is CO-LAT, which stands for co-latitude and is the angular measurement of the site from the pole at point C. If the latitude is North then the CO-LAT is equal to $90^\circ - \text{LAT}$. If the site's latitude is South, the CO-LAT is the $\text{LAT} + 90^\circ$.



Since I can only estimate the Sun's elevation to within a couple of degrees, and since the Sun's displacement of plus or minus 5° results in less than a 1 degree difference in elevation, I can ignore both polar tilt and inclination and always use the lunar equator for one of the parameters of the Sun's geophysical position. Without entering NASA's archives and physically submitting my body to their control, I have no way of determining the exact times the various photos were taken. I can only compare them by calculating the extreme geophysical positions of the Sun for the day and hour of each Moon landing and lift-off.

First, I will calculate the Sun's position during the Apollo 11 landing. Under the heading "On Moon" in the mission data chart, we find that the landing took place 6.5 days after the new Moon. We multiply that figure of 6.5 days by the rotational rate of 13.176° per day and get 85° , which we subtract from 180° to find the longitude of the Sun was 95°E . The rotation is always the days elapsed times the angle of 13.176° . The new longitude is always 180° minus the determined result. Using the same procedure I calculated all the Sun longitudes for all the landings and liftoffs as shown in the polar angle chart.

The next step is to determine the angle of separation between the Sun site and the landing site. Because both sites are the same longitude (East), we subtract the site (23°E) from (95°E) and we get a polar separation angle of 72° . I repeated this process for the time of lift-off and found the polar angle was 58° ($81^{\circ}\text{E} - 23^{\circ}\text{E}$). In Sketch # III, we see the reason for the subtraction. In Sketch # IV when the longitudes are opposite we add the longitudes to obtain the separation angle.

SITE A EAST - SITE B EAST**SITES A WEST 7 SITE B EAST****APOLLO 11 — POLAR ANGLE CHART**

	Days	Angle per Day	Rotation	Sun's Long.	Polar Angle
Land	06.5	13.176°	085°	95°E	72°
Lift	07.5	13.176°	099°	81°E	58°

APOLLO 12 — POLAR ANGLE CHART

	Days	Angle per Day	Rotation	Sun's Long.	Polar Angle
Land	10.0	13.176°	132°	48°E	72°
Lift	11.3	13.176°	150°	30°E	54°

APOLLO 14 — POLAR ANGLE CHART

	Days	Angle per Day	Rotation	Sun's Long.	Polar Angle
Land	10.0	13.176°	132°	48°E	63°
Lift	11.4	13.176°	118°	30°E	45°

APOLLO 15 — POLAR ANGLE CHART					
	Days	Angle per Day	Rotation	Sun's Long.	Polar Angle
Land	09.0	13.176°	112°	68°E	66°
Lift	11.8	13.176°	148°	32°E	30°

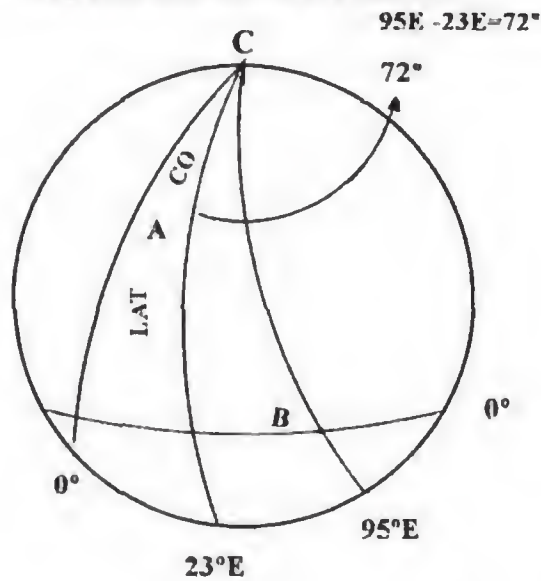
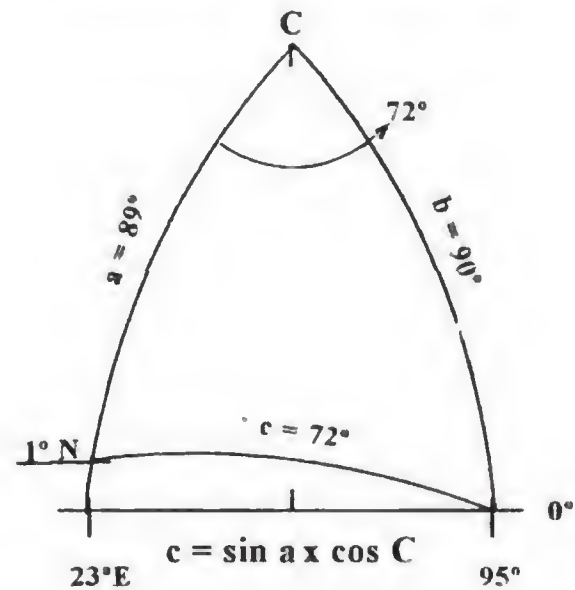
APOLLO 16 — POLAR ANGLE CHART					
	Days	Angle per Day	Rotation	Sun's Long.	Polar Angle
Land	08.0	13.176°	105°	75°E	60°
Lift	11.0	13.176°	145°	35°E	20°

APOLLO 17 — POLAR ANGLE CHART					
	Days	Angle per Day	Rotation	Sun's Long.	Polar Angle
Land	06.5	13.176°	085°	95°E	64°
Lift	09.7	13.176°	128°	52°E	21°

The lowercase letters and functions stand for arc distance from the pole and are called the co-latitudes of the sides; the uppercase is for polar angle C. In Sketch # V we plot the Apollo 11 landing site A (1°N) to the sun site B using line c. Once we draw side c we have formed the basic navigational triangle. The two sides are formed by the co-lat of site A and the co-lat of site B while C is the angle between the two sides and side c is the final enclose. This is now a spherical triangle. The basic equation used for spherical triangles when 2 sides and the polar angle are known is of this nature : $\cos c = \cos a \cdot \cos b + (\sin a \cdot \sin b \cdot \cos C)$ where c equals the arc separation distance of landing site from the Sun.

Because side b is always 90° and the cosine of 90° equals 0, we can eliminate the first half of the equation. We are left with $\cos c = \sin a \cdot \sin b \cdot \cos C$. However, since the sine of 90° = 1 we can also drop sin b. The final equation is the greatly simplified: $\cos c = \sin a \cdot \cos C$. Naturally the acos of cos c equals the arc distance. In each case, for a single mission, side a of the triangle will be 89° because the landing site remains the same.

In Sketch # VI, I used a type of schematic I created 20 years ago to represent the spherical triangle. This helps me visualize the arc separation distance before beginning the calculation. I label point C (the polar angle) 72°. Since the two sides are measured from the pole in degrees, we must introduce the term co-latitude. The co-latitude of the site (side a) is the arc distance from the pole which is 90° - 01° or 89°. Since we are assuming the Sun to be on the equator the co-latitude of the Sun (side b) is 90°.

APOLLO 11 LANDING**SPHERICAL TRIANGLE**

V VI

The arc separation of the Apollo 11 landing is found by multiplying the sine of 89° by the cosine of the 72° polar angle. This calculates to a little over 72° . The Sun's angle of elevation at that time was $90^\circ - 72^\circ$ or 18° . All the other landing and lift-off calculations are identical. The Apollo 11 lift-off is found by multiplying the sine of 89° by the cosine of the 58° polar angle. The arc distance here is a little over 58° . Therefore, the Sun's elevation at that time is $90^\circ - 58^\circ$ or 32° . By similar calculation I found the Sun's elevation at landing and lift-off for the other missions.

SUN ELEVATION CHART		
	Land	Lift
Apollo 11	18°	32°
Apollo 12	18°	36°
Apollo 14	27°	45°
Apollo 15	27°	57°
Apollo 16	30°	68°
Apollo 17	24°	61°

The photo of "Gotcha #1" on page 180 shows that Aldrin's shadow was produced by a Sun that was 34.9° above the horizon. The Sun's maximum elevation for that trip was 32° , but a difference of 2.9° is not enough to be absolutely certain. However, if we consider that the salute ceremony was one of the first items of business each time they landed, and was performed in the first 6 hours on the Moon, we have a Sun elevation of only 22° . The difference here is almost 15° . It is very significant to be well beyond any possible error.

This single photo is enough to destroy forever NASA's claim of landing astro-nots on the Moon.

On page 34 there is a photo that shows the shadow from the foot pad on the Apollo 14 LEM. The measurements of the height of it are 0.21 inches. The length of the shadow is a minimum of 0.91 inches. Since the tangent of the angle is found by dividing the height by the length, we find a tangent of 0.023. The arctangent of this is the angle of 13° . However, the Sun was already 27° high when they landed and 68° when they lifted. If they raced outside and popped that picture they still would have missed by 13° . If they waited an hour or so the difference increased. This discrepancy is also very significant.

The cover photo also has a shadow discrepancy. Pete Conrad, shown in the reflection on Bean's faceplate, has a shadow that clearly shows his crotch. To the best of my measuring ability I find that the height of his crotch from a line connecting his heel is 0.140 inches. The length of his shadow from that same line is 0.142 inches. The tangent of the angle is 0.9859 which gives us an angle of elevation of 44.59° . However, the maximum height of the Sun when they left was only 36° . Oh dear!

I have no doubt that all these Sun angles were pre-calculated by NASA, but something obviously went wrong on the film set. Perhaps the head cameraman had an artistic hissy fit and changed the main lighting angle for dramatic effects. All I know for sure is that neither of these photos were taken on the Moon. And, if these were faked — why not all the others?

The Apollo 16 mission landed when the Sun was 30° above the horizon and had been continuously heating the ground for over 8 days. In the NYC area the Sun is that high at the winter solstice. Anyone who works outside or goes skiing can tell you about the amount of heat that you get on a clear day. The astro-nots stayed until the Sun attained an altitude of 68° . In the NYC area the Sun gets that high in July. When I designed a solar collector many years ago I knew I needed to take the overhead Sun as unity (enough to heat the lunar surface to 250°F) so the heat varies as the cosine of 90° minus the altitude. Therefore, at 30° of elevation the heating effect is 50%. At 68° it is 92%. How hot is the lunar surface after being baked for 11 days straight with no night to let it cool down? How long does it take until the surface of the Moon (and the LFM) is 200°F ? I wonder if these astro-nots also lost sleep because their LEM was too cold?

23 THE NASA PHOTO ADDENDUM

In 1992 I originally predicted that NASA would find a way to "lose" the three color photos used in this book. You saw this mentioned in the "Author's Notes", footnote 1. I also predicted that the photos would be obtainable. They are and are not. Read on!

The ink was barely dry on my first edition when I tried to get extra copies of the three colored photos. For \$13 apiece they had the gaul to send me three 8 by 10 glossy full color optical quality photos of their choice. When I sent them back to get either my money or the right photos they sent me the money and informed me that I would have to give them the new NASA numbers.

When I asked for the list of the new numbers I was told, "We lost the cross-over index."! Gee! I wonder why a mission numbering system in place for 23 years was suddenly changed?

Sometime during '99 I tried again. This time I was told that the photo sales had been privatized and that the Bara-King Studios in Maryland now supplied the photos. In February, 2000, since I still couldn't get the "lost" index I sent Bara-King Studios black & white copies along with \$15 apiece for the three, 8 by 10 optical quality glossy full color photos you see in this book.

They sent me the right photos. However, the photos were not 8 by 10 optical quality glossy full color photos. Instead, they were computer derived showing grainey, blurred colors. In addition, the "C" on the rock had been brushed out, and the size reduced to 6.75 by 7 inches.

I screamed and yelled for my money back which they immediately returned. I kept the photos and sent them a copy of this book so that they could see for themselves what NASA did. So ends the saga of the "lost" numbering system.

24 THE BEST FOR LAST ADDENDUM

From day one of writing this book, I sort of felt sorry for the astro-nots involved in the Apollo missions because I thought the devil (CIA) may have made them do it. However, since Jim Lovell lied on the interrogatories for a libel suit against him by Bill Kaysing, I have consistently called him "LIAR LOVELL". Now we can visually prove that all of the Apollo astro-nots were willing accomplices and therefore, all of them are liars!

On Tuesday 4/25/00, I attended a video premier in Nashville, Tennessee hosted by Bart Sibrel of Absolute Video. Bill Kaysing and I were the guests of honor because this video used much of the information Bill and I spoke of during the long interviews he had of us filmed years before for a documentary. He worked on it almost three years and last July (1999), he stumbled upon NASA footage of the Apollo 11 missions that contained the smoking gun. I suspect that the original interview video is now history along with the fact that he promised to credit us as authors prominently display our respective books and tell his viewers how to find us. Somehow, we became his researchers and his credits fly by so fast you would need to stop the motion to see our names.

Later still he found two other sets of NASA footage that showed the bullets being fired. These two sequences with their title slates were the first thing we all saw that day. None of this had yet been woven into the video. The dates on both slates showed that this footage was filmed days before they left for the Moon. One video showed the landing we later watched and the other an astro-not (one liar or another) gamboling on the Moon. The important phrase is: "days before they left"!

The first NASA footage he found in July is included in his video "A Funny Thing Happened On The Way To The Moon". This is the title I had used for my original manuscript and which subsequently became the "NASA MOONED AMERICA!" you are now reading. But I was only his "RESEARCHER"!

On July 19, 1969, Aldrin, Armstrong and Collins were supposed to be half way to the Moon. However, the video footage (date stamped July 19, 1969) shows them in a low Earth orbit (still under the Van Allan Belts) taking trick photos of the Earth to "prove" they were half way to the Moon. When you are in low Earth orbit (a couple of hundred miles) the Earth almost completely fills the portholes. The only photographic proof they could offer during the early days of the mission was to show the Earth shrinking in the portholes as they progressed. When you are actually halfway to the Earth's apparent diameter shrinks.

However, the NASA video shows that Collins, Armstrong and Aldrin were actually "shrinking" the Earth. At first, they had the camera lens near the porthole. Then they totally blacked out the ship (even the instrument lights) and began to slowly move the camera away from the porthole. Since the wall was now so dark we assumed that the wall was the porthole. In a few feet of the July 19 footage, we suddenly see the barely visible rim. We also see someone's arm accidentally get between the porthole and the camera lens. This proves that the camera is no longer close to the porthole. The footage is also in color after all the astro-nots involved (and NASA) swore that Apollo 11 carried no color cameras to the Moon.

Thinking about this, it is one of the few times the NASA liars have told the truth. That capsule never carried a color camera to the Moon because it never went to the Moon. And there you are ... I did save the best for last.

USA MANNED MISSIONS — MERCURY			
Name	Dates	Mission	Crew
Mercury 1	05/05/61	Ballistic	Alan Shepard
Mercury 2	07/21/61	Ballistic	Gus Grissom
Mercury 3	02/20/62	Earth Orbit	John Glenn
Mercury 4	05/24/62	Earth Orbit	Scott Carpenter
Mercury 5	10/03/62	Earth Orbit	Wally Schirra
Mercury 6	05/15/63	Earth Orbit	Gordon Cooper

USA MANNED MISSIONS — GEMINI				
Name	Dates	Mission	Crew	
Gemini 3	03/23/65	Earth Orbit	Gus Grissom	John Young
Gemini 4	06/03/65 – 06/07/65	Earth Orbit	Jim McDivitt	Ed White
Gemini 5	08/21/65 – 08/29/65	Earth Orbit	Gordon Cooper	Wally Schirra
Gemini 6A	12/15/65 – 12/16/65	Earth Orbit	Wally Schirra	Tom Stafford
Gemini 7	12/14/65 – 12/18/65	Earth Orbit	Frank Borman	Jim Lovell
Gemini 8	03/16/66	Earth Orbit	Neil Armstrong	Dave Scott
Gemini 9	06/03/66 – 06/06/66	Earth Orbit	Tom Stafford	Gene Cernan
Gemini 10	07/18/66 – 07/21/66	Earth Orbit	John Young	Mike Collins
Gemini 11	09/12/66 – 09/15/66	Earth Orbit	Pete Conrad	Dick Gordon
Gemini 12	11/11/66 – 11/15/66	Earth Orbit	Jim Lovell	Buzz Aldrin

USA MANNED MISSIONS — APOLLO					
Name	Dates	Mission	Crew		
Apollo 7	10/11/68 – 10/22/68	Earth Orbit	Wally Schirra	Don Eisele	Walt Cunningham
Apollo 8	12/21/68 – 12/27/68	Moon Orbit	Frank Borman	Jim Lovell	Bill Anders
Apollo 9	03/03/69 – 03/13/69	Earth Orbit	Jim McDivitt	Dave Scott	Rusty Schweikart
Apollo 10	05/18/69 – 05/26/69	Moon Orbit	Tom Stafford	John Young	Gene Cernan
Apollo 11	07/16/69 – 07/24/69	Moon Landing	Neil Armstrong	Mike Collins	Buzz Aldrin
Apollo 12	10/14/69 – 10/24/69	Moon Landing	Pete Conrad	Dick Gordon	Al Bean
Apollo 13	04/11/70 – 04/17/70	Moon Landing	Jim Lovell	Jack Swigert	Fred Haise
Apollo 14	01/31/71 – 02/09/71	Moon Landing	Al Shepard	Stu Roosa	Ed Mitchell
Apollo 15	07/26/71 – 08/07/71	Moon Landing	Dave Scott	Al Worden	Jim Irwin
Apollo 16	04/16/72 – 04/27/72	Moon Landing	John Young	Ken Mattingly	Charles Duke
Apollo 17	12/07/72 – 12/19/72	Moon Landing	Gene Cernan	Ron Evens	Jack Schmitt

USA MANNED MISSIONS — SKYLAB					
Name	Dates	Mission	Crew		
Skylab 2	05/25/73 – 06/22/73	Earth Orbit	Pete Conrad	Joe Kirwin	Paul Weitz
Skylab 3	07/28/73 – 09/25/73	Earth Orbit	Al Bean	Owen Garriott	Jack Lousma
Skylab 4	10/16/73 – 02/08/74	Earth Orbit	Jerry Carr	Ed Gibson	Bill Pogue

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